Seneca Environmental Services

FedEx. USA Airbill

FedEx Tracking Number **808743007959**

Form I.D. No. 0210

Recipient's Copy

1 From

Date 12/10/02

Sender's Name [redacted] Phone (800) 798-6900

Company SENECA ENVIRONMENTAL SVC

Address 17851 244TH AVE

Dept./Floor/Suite/Room

City BETTENDORF State IA ZIP 52722

2 Your Internal Billing Reference Information

3 To

Recipient's Name [redacted] Phone ( )

Company [redacted]

Address [redacted]

(To "HOLD" at FedEx location, print FedEx address here)

Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City [redacted] State FL ZIP [redacted]

For HOLD at FedEx Location check here

☐ Hold Weekday (Not available with FedEx First Overnight)

☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra charge. Not available at all locations)

☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only)

☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

808743007959

4a Express Package Service *Packages under 150 lbs.*

Delivery commitment may be later in some areas.

☐ FedEx Priority Overnight (Next business morning)

☒ FedEx Standard Overnight (Next business afternoon)

☐ FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply)

☐ FedEx 2Day (Second business day)

☐ FedEx Express Saver (Third business day)

FedEx Letter Rate not available. Minimum charge: One pound rate.

4b Express Freight Service *Packages over 150 lbs.*

Delivery commitment may be later in some areas.

☐ FedEx Overnight Freight (Next business day)

☐ FedEx 2Day Freight (Second business day)

☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. See back for detailed descriptions of freight services.)

5 Packaging

☐ FedEx Letter ☒ FedEx Pak ☐ FedEx Box ☐ FedEx Tube ☐ Other Pkg.

Declared value limit $500

6 Special Handling (One box must be checked)

Does this shipment contain dangerous goods?* ☒ No ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice Dry Ice, 9, UN 1845 _____ x _____ kg.

☐ Cargo Aircraft Only

*Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment

☐ Obtain Recipient FedEx Account No.

Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
		$ .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See **SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY** section for further information.

Credit Card Auth. _____

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

Questions?
Call 1·800·Go·FedEx® (800)463-3339

321

Rev. Date 3/98
Part # 15303PG
©1994-98 FedEx
PRINTED IN U.S.A.
SRFE

RECEIVED BY OSC C GEBIEN ON 12/11/02

Seneca Environmental Services

November 18, 2002

Mr. James Petrozzini
2012 N. Western Avenue
Chicago, IL 60647

Re: Former Electro Finishers
1662 West Fullerton Avenue
Chicago, IL

Dear Mr. Petrozzini:

Please find enclosed the final report for the site activities that we have completed at the referenced property. Comments generated during our November 7, 2002 meeting have been incorporated in the conclusions and recommendations section of the report.

Thank you for the opportunity to work on this project. Should you have any questions regarding this report, please call me at (563) 332-8000

Sincerely,
Seneca Environmental Services

Scott E. Killip
Branch Manager

cc: Lisa Kritt
Charles Gabien, U.S. EPA

Enclosure

Des Moines

P.O. Box 3360
4140 N.E. 14th Street
Des Moines, Iowa 50316-0360
515•262•3500
800•369•3500
515•262•2469 FAX

Bettendorf

17851 244th Avenue
Bettendorf, Iowa 52722
563•332•2272
800•728•6900
563•332•9465 FAX

REPORT OF SITE ASSESSMENT ACTIVITIES

Former Electro Finishers

1662 West Fullerton

Chicago, Illinois

U.S EPA ID B5R4

PREPARED BY

Seneca Environmental Services
17851 – 244th Avenue
Bettendorf, Iowa 52722

November 18, 2002

TABLE OF CONTENTS

APPENDICES

1.0 BACKGROUND

1.1 Introduction and Site History

The subject property, Former Electro Finishers (FEF),is listed as having the addresses of 1654, 1660, 1662, and 1702 West Fullerton Avenue and is located near the northwest intersection of Fullerton and Clybourn Avenue, Chicago, Illinois (See Figure 1, Appendix A). The subject property is currently owned by Mr. James Petrozinni. There are four brick Buildings on the property that are contiguous, Buildings A through D (see Figure 2, Appendix A). The Buildings are currently used to store miscellaneous automobile parts.

Indications from prior investigations are that the property was used for electroplating various items, primarily large hydraulic cylinders. Plating activities reportedly were conducted primarily in Building A and Building B. Past investigations also indicate that chemicals of concern (COCs) have been detected in the mortar, brick, and soil at FEF (See Table 1, Appendix B). These COCs include lead, total chromium and most notably, hexevalent chromium (CR^{+6}) from a TCLP extract. Additionally, chromium was detected in the mortar and in a sump, presumably containing groundwater, in a residential dwelling located contiguous and to the west of the subject property. These COCs were also identified in a unilateral Administrative Order issued by U.S. EPA on November 26, 2001.

Mr. Charles Gabien On-Scene Coordinator, Office of Superfund, Region V U.S. EPA performed administration during this project. Based on correspondence with U.S. EPA, immediate and primary concerns regarding the subject property are conditions that were identified in previous environmental assessments and reports that included: 1) chromium precipitate on the interior and exterior of Building A, 2) soil contaminated with lead and chromium located in the northwest site yard, 3) chromium precipitate located in the basement of a residential Building located adjacent to the west property line of the subject property (Building A), and 4) an underground storage tank (UST) located in Building B. Given these conditions, the assessment efforts documented in this report addressed the concerns of U.S. EPA.

2.0 SITE MOBILIZATION

2.1 Site Activities

On site activities that were completed during the investigative activities included:

- Contaminant source delineation in soil and groundwater.
- Hydrogeologic assessment.
- COC removal activities.
- UST investigation and sampling.

3.0 SAMPLING ACTIVITIES

3.1 Soil Sampling and Analysis

Ten soil borings were drilled during the implementation of this work plan to determine the source concentrations and extent of lead and chromium contaminants in the subsurface soils (see Figure 2, Appendix A for locations). Sampling was performed using a Geoprobe sampler. Soil samples were continuously collected until a clay stratum was reached or probe refusal was encountered.

A minimum of three samples from each boring were submitted to a laboratory for analysis, including one sample from the vadose zone at approximately 3 feet below ground surface (BGS), one at the groundwater interface at approximately 7 feet BGS and one at a depth below the groundwater, at 13 feet BGS.

Soil samples were containerized in 4-ounce glass jars and placed on ice for shipment to a laboratory. Samples were analyzed for CR^{+6}, and lead and total chromium from a TCLP extract.

Initial subsurface sampling efforts consisted of utilizing a hand auger at various locations in Buildings A and B and in the northwest yard of area on May 8, 2002. Despite repeated attempts, auger refusal was encountered at approximately two to three feet below ground

surface (BGS). Two samples were collected from the shallow borings at that time, B5 at 2.5 feet BGS (located near the center of the northwest yard area) and B2, located coincidental to location B8. Analysis results of CR^{+6} from B5 indicated elevated levels of TCLP similar to previous sampling efforts in the northwest yard area, although the results are an approximate order of magnitude less that the previous results.

Results of the analysis indicate elevated levels of CR^{+6} in sample locations B3, B4, B5, B6, B7, and B10. Lead was not detected in the TCLP extract at detection levels exceeding 0.10 ppm to 0.4 ppm. Depths of the COC CR^{+6} and total chromium appear sporadic, with the greatest concentration (520 ppm) found at three feet in location B10. See Appendix B for soil analysis results. Figures and Tables showing the detected levels of chromium and the respective depths from where they were collected are found in Appendix C.

The levels of chromium in soil were compared to the Illinois Tiered Approach to Cleanup (TACO) levels that are applicable to contaminated properties (see Table 1, Appendix C). TACO is used by the state of Illinois to determine human health risk associated with COCs found at contaminated sites. Three soil pathways and corresponding remediation objectives are considered for TACO, soil component of the groundwater ingestion, inhalation exposure and direct ingestion. Two sets of remediation objectives and corresponding remediation objectives are used, residential and non-residential zoning. The soil component remediation objectives for chromium are irrespective of zoning designations. Both designations and remediation objectives are discussed in this narrative. Any use of remediation objectives based on a non-residential scenario would require a deed restriction on the affected property that restricts the use of the property as commercial/industrial (non-residential).

The soil component of groundwater is the most restrictive (lowest) allowable contaminant level for evaluation of contaminated sites. This pathway, however, can be excluded when considering remediation objectives if it can be demonstrated that groundwater in the area of the release will not be consumed as drinking water and that the contaminated groundwater will not migrate to points of groundwater withdrawal for consumption or to surface water bodies.

An ordinance currently exists that prohibits the installation of groundwater wells for consumption of groundwater. This ordinance has been reviewed and approved by Illinois EPA

for use as a method to exclude the groundwater pathway. Since the source of drinking water is Lake Michigan and that virtually all tap water is supplied by the Cities' distribution system, it is reasonable to assume that this pathway can be excluded. Groundwater modeling would most likely need to be completed to show the COC migration potential and substantiate the request for pathway exclusion.

Given the exclusion of the groundwater consumption pathway, the next most restrictive pathway using TACO is the direct soil ingestion pathway with a corresponding chromium remediation objective of 230 ppm followed by the inhalation pathway objective of 270 ppm. Based on the results of the analysis, three sample locations exceed 230 ppm for chromium, B4, B6 and B10. These locations also exceed 270 ppm. If the property is considered for residential use, these locations would need to be remediated to meet the TACO objectives. If non-residential considerations are used for the remediation objectives, a value of 420 ppm is used for industrial/commercial inhalation considerations of chromium followed by an objective of 4,100 ppm for construction work ingestion.

TACO considerations for remediation objectives also allow the use of engineered barriers to exclude pathways. This includes the use of surface coverings such as concrete to disallow the possibility of contact with soil by human receptors. If such barriers are in place and a deed restriction documenting a requirement of maintenance of such barriers, the pathway can be excluded. Given a source value of 520 ppm (B10), the source does not exceed the construction worker ingestion pathway for industrial properties and can be addressed using an institutional control.

3.2 Groundwater Monitoring Well Installation

Ten groundwater monitoring wells were installed in each of the ten soil boring locations. The wells were constructed of 2-inch polyvinyl chloride (PVC) casing, and perforated PVC well screens. Well TMW1 and TMW2 were temporary wells installed in the alleyway to the west of FEF, wells MW3 through MW10 were installed inside Buildings A and B (see Figure 2).

3.3 Hydrogeologic Investigation

Borings were continuously sampled with Geoprobe sampler and were logged by a qualified

geologist to record lithologic changes and the depth of the water table. This data was transcribed to a well log so that a comprehensive profile (cross section maps) of the subsurface was completed. (See Appendix D for well logs; Figures 3 and 4 [Appendix E] display a geologic cross section of the affected area and the line of section, respectively.)

After completion of the monitoring wells, qualified field personnel completed a site survey of elevations based on a common datum point to all wells. After water levels stabilized in the monitoring wells, ground water levels accurate to 0.01 feet were measured wells MW3 through MW9 (see Table 2, Appendix E for well elevation data). Groundwater in MW10 was absent due to probe refusal above the groundwater elevation.

Based on the well data a pieziometric surface map of the uppermost groundwater elevations (see Figure 5, Appendix E). Indications are that the groundwater gradient is relatively flat, with an approximate 1.85-foot difference in elevation over a distance of 90 feet, having a flow direction to the southwest and gradient of 0.02.

Uppermost, unconfined groundwater typically moves in areas similar to this site toward the nearest surface water body. The site flow direction would be consistent with the location of the Chicago River, which is located approximately 1,000 feet to the southwest.

Slug testing was completed at wells MW4, MW7, and MW9. The slug tests were performed by removing a known volume (slug) from the wells and measuring the rate of groundwater recovery. Recovery was measured with a depth to water meter and the results were downloaded into the Bouwer-Rice Slug (BR Slug) software program. The rates of recovery were plotted verses time on a logarithmic graph so that the conductivity of the upper most groundwater table was determined.

Conductive values ranged from 4.03 x 10-1 to 1.33 x 10-2 meters/day (m/day). (See Appendix E for conductivity data.) These values would be consistent with conductivities for groundwater found in clay and would not typically be utilized for extraction or potable purposes due to an extremely low yield.

3.4 Groundwater Sampling and Analysis

Temporary wells were sampled using a peristaltic pump. Wells MW3 through MW9 were sampled utilizing disposable sample bailers. A groundwater sample was not colleted from MW10 due to the lack of groundwater at that location. Water samples collected for lead and total chromium metal analysis were containerized in 750 ml plastic bottles and preserved with nitric acid so that the pH of the sample is less than 2. Samples analyzed for CR^{+6} were not preserved using nitric acid per sample analysis protocol. All samples were placed into an iced cooler prior to shipment.

Groundwater samples were collected at each well in the following manner:

- The groundwater levels were measured with a calibrated depth to water meter accurate to 0.01 feet and the water column height were calculated.
- Three well volumes of groundwater were purged.
- After the third well volume was removed, the groundwater was measured in the field for pH, specific conductance and temperature.
- Groundwater samples were collected for total and dissolved COCs. Samples to be analyzed for dissolved COCs were field filtered using a 0.45-micron filter.
- Observations of the groundwater conditions and the field measurements were recorded in a field notebook.

3.5 Groundwater Analysis Results

Dissolved lead was not detected in the groundwater above detection limits exceeding 0.1 ppm in all samples except MW9, where an elevated detection limit of 0.5 ppm was recorded. Total lead was detected in wells TMW1, TMW2, MW6, MW7 and MW9 (see Table 4, Appendix E for groundwater analysis results. A map showing the locations and detection levels of lead are presented in Appendix E).

Elevated levels of CR^{+6} were observed in wells MW3, MW4 and MW6. A low level of CR^{+6} was observed in MW7. Total chromium was analyzed in TMW1 and TMW2 as a quality

control check for the samples analyzed for CR^{+6} since the holding time for the CR^{+6} samples were exceeded by approximately four hours for those two locations.

The locations of the four wells where CR^{+6} was detected in the groundwater are consistent with the groundwater gradient and the area where the dip tanks were reported to have been located (ir. the west portion of Building A). With the samples from TMW1 and TMW2, the plume appears to be largely defined using the available areas for sampling. Additional wells to define the groundwater southwest of MW4 and MW3 would be problematic due to the lack of area where they could be installed.

Given the high concentrations found at MW3, MW4 and MW6, it is likely that the COC CR^{+6} has migrated to the west and southwest from the site. However, due to a lack of area(s) where wells can be placed for sampling and the lack of access for well installation at the Zadrozny residence, it is unlikely that further significant definition of the groundwater plume can be achieved at offsite locations.

If TACO rules are applied to the groundwater contaminants, the pathway would likely be excluded due to the accepted ordinance that prohibits groundwater well installations for potable purposes. Further research regarding reported well locations (see Appendix F for reported well locations) and computer modeling would most likely be needed to exclude the pathway and conform to IEPA TACO rules.

4.0 REMOVAL ACTIVITIES

4.1 Site Cleanup Activities

Cleanup activities to address immediate and primary concerns regarding the subject property were undertaken during the site activities and are discussed further in Section 4.2.

An inspection of the subject property was made during 1999 to determine if friable asbestos was present that would present a hazard to human health. The results of the inspection indicated that asbestos was present in limited areas of the investigation area (see Appendix H).

4.2 Decontamination and Encapsulation Activities

Indications from previous investigations are that chromium contaminated precipitate is evident on the façade of Building A. Painted heavy-duty plywood, secured with anchor bolts was emplaced over the façade of Building A to prohibit direct contact with the precipitate. This measure removed the direct contact pathway for the COC.

Areas of visible chromium precipitate accumulation were physically removed during the investigation using hand tools and vacuum cleaners. Additionally, a sodium bisulfate solution was applied to the areas. These areas included the interior of Building A and B and the interior of the residential basement to the west of the subject property. The following narrative describes the decontamination and encapsulation activities at the FEF site.

May 7, 2002 – Seneca mobilized to the FEF property and gained access to Zadrozny basement at 1704 West Fullerton Ave. The Zadrozny basement area was inspected photographs of areas where yellow staining was evident were taken. These areas included the lower three feet of the surface of a chimney located in the north/central area of the basement and the south wall of the basement. Stained mortar and yellow precipitate at these areas were removed with hand tools and vacuumed with a portable vacuum cleaner. The vacuum was equipped with a Gore Tex filter and a drywall (type) dust bag to eliminate fugitive dust emissions. An application of 10% sodium bisulfate solution was applied to the affected areas and followed by a coat of basement sealer latex paint. Three additional applications of "Kills" were made on the areas after the sealer dried. Despite the application of the solution and heavy applications of paint, minor yellow staining was still apparent that appeared to leach through the paint, although friable particulates were absent.

Cleanup activities were conducted in Building A and B at FEF, which consisted of removing yellow precipitate that was evident on the walls of both structures and in cracks observed in the floor in the southwest area of Building A (the reported location of plating dip tanks). Removal of the material was conducted with hand tools and a vacuum. Notable conditions during the effort were additional areas of precipitate encountered below layers of paint that had begun to peel. This was most evident on the north wall of Building A where precipitate was observed from the floor area to the ceiling level, approximately 20 feet from the floor. Also notable were the condition of the red brick construction materials that forms the structure walls. An

inspection of the interior of a brick that was removed from the wall of Building A indicated that the pore area of the brick were saturated with a yellow material, presumably chromium waste. Materials removed from the wall areas were containerized in a 55-gallon drum and sealed.

May 8, 2002 - A fourth application of paint was made at the Zadrozny basement with similar results that were encountered on May 7.

Additional areas of Building A and B underwent removal efforts similar to methods used on May 7. Concrete was applied to the floor area of Building A where yellow precipitate was observed in the cracks in the floor to encapsulate the cracks and prevent further precipitate from forming. Yellow precipitate was removed from the majority of areas where it was encountered in large volumes and friable conditions. Areas where precipitate had flaked off the walls and collected on the floor were cleaned using hand tools followed with a vacuum. The materials were containerized in a 55-gallon drum.

A heavy-duty plastic tarp was placed over a debris pile located in the fenced area north of Building A. The tarp was weighted down with boards and rocks to keep it in place. This was completed per U.S. EPA approval to prevent offsite migration of debris material.

May 9, 2002 – Additional manual removal work was undertaken. Seneca met with Mr. Petrozinni and Mr. Charles Gabien at the FEF site. Mr. Gabien observed the areas where removal activities had occurred in Buildings A and B and observed the fenced area north of Building A. During the meeting it was observed that yellow staining was reemerging from areas where removal efforts had been conducted.

June 20, 2002 – Seneca mobilized to the site to complete the subsurface investigation and to assess the effects of the May removal activities.

Observations of the Zadrozny basement area where removal activities were undertaken indicated that a patching compound (Dryvet) had been placed over such areas by the owner, Mr. Zadrozny. He indicated that the yellow staining had reemerged from the areas where Seneca had undertaken removal of yellow precipitate followed by paint application. Mr. Zadrozny placed the patching compound over these areas shortly after Seneca's removal

attempts.

A meeting was held with Mr. Zadrozny and Mr. Gabien on the 20th to discuss the status of his basement area, Mr. Zadrozny appeared confident that his efforts would satisfy his concerns regarding the occurrence of yellow staining and precipitate in his basement area. He also indicated that he had installed a sump in his basement approximately 15 years ago, which has prevented the occurrence of (potentially contaminated) water in his basement since that time. Mr. Zadrozny declined an offer by Mr. Gabien to sample the soil in his back yard to determine if chromium was present in the soil. Mr. Zadrozny also indicated that he did not want any more work completed on his property to address the potential conditions presented by the presence of the FEF property.

Observations made at the FEF site with Mr. Gabien included the extensive areas of Buildings A and B where yellow precipitate was removed during the May activities. While these areas were essentially precipitate free following the May removal activities, it had reemerged at these areas equal to the volume that was present prior to the May activities. Based on these observations, it was concluded that the brick was saturated with (system) chromate and that the migration of it onto surface inside the Building was relatively aggressive and rapid.

4.3 UST Sampling and Removal

A fuel oil UST is located inside and in the northwest corner of Building B. The UST was accessed as part of the cleanup activities and sampled so that the contents were determined for compatibility and hazardous waste determination, based on previous activities at the site. Analysis includes chromium, cyanide and PCBs. (See Appendix I for analysis results)

Based on the results of the analysis, the levels of chromium exceed the RCRA standards for chromium. This is most likely the result of migration of chromium-affected surface water and/or affected groundwater infiltrating into the UST.

17 mg/kg Chromium 0007 5.0 mg/l TCLP

Based observations made during the investigation and on the conditions of the UST, a request for an exemption for its removal has been presented to the Chicago Department of environment, the governing (home rule) agency for USTs in Chicago (see Appendix J). The observations and condition for the exemption include:

- The UST is a fuel oil UST and is exempt from UST regulations for mandatory removal.
- It is a pre-1974 UST, which also makes it exempt from UST regulations for removal.
- The UST is located in the interior of the Building and near a support beam for it. Removal of the UST would undermine the structural integrity of the Building.

The decision by the CDEM regarding the UST is pending.

5.0 CONCLUSIONS and RECOMENDATIONS

Application of TACO considerations would most likely close the groundwater ingestion pathway. TACO considerations may also be employed to close the soil ingestion and inhalation pathways. An engineered barrier would most likely need to be emplaced in the area of exposed soil on the outside northwest corner of the Building due to high levels of lead and chromium observed in surface soils in the past. This would require application of a suitable layer of concrete or asphalt and a deed restriction that addresses the maintenance of it. A similar deed restriction would have to be emplaced for the interior floor area of the Building to address the chromium compounds found in the subsurface below the Building.

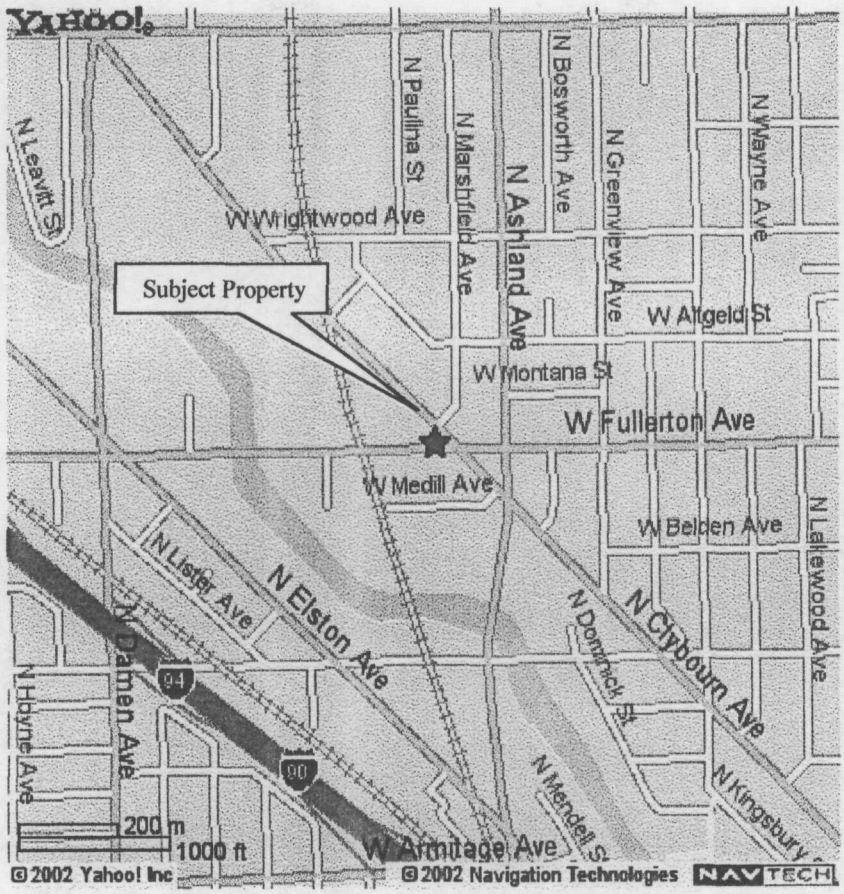
If TACO is used as a determination of the remedial objectives at the site, future land use would determine which objectives would be applicable. If a residential land use scenario is considered for the site, lower concentrations of soil contaminants would need to be considered. Non-residential land use would consider significantly higher remediation objectives.

The presence of the chromate precipitate on the interior and exterior of Buildings A and B appear to be the result of an aggressive and rapidly precipitating chromate waste that are saturated in portions of the brick at the site. Manual removal of the precipitate did not affect a permanent remedy to its occurrence. Given these properties, two possible remedial applications can be made, encapsulating the affected areas with durable and permanent material or source removal of the brick and underlying media. Source removal would most likely have the greatest effect on the occurrence of the chromate waste but would most likely incur the greatest costs to

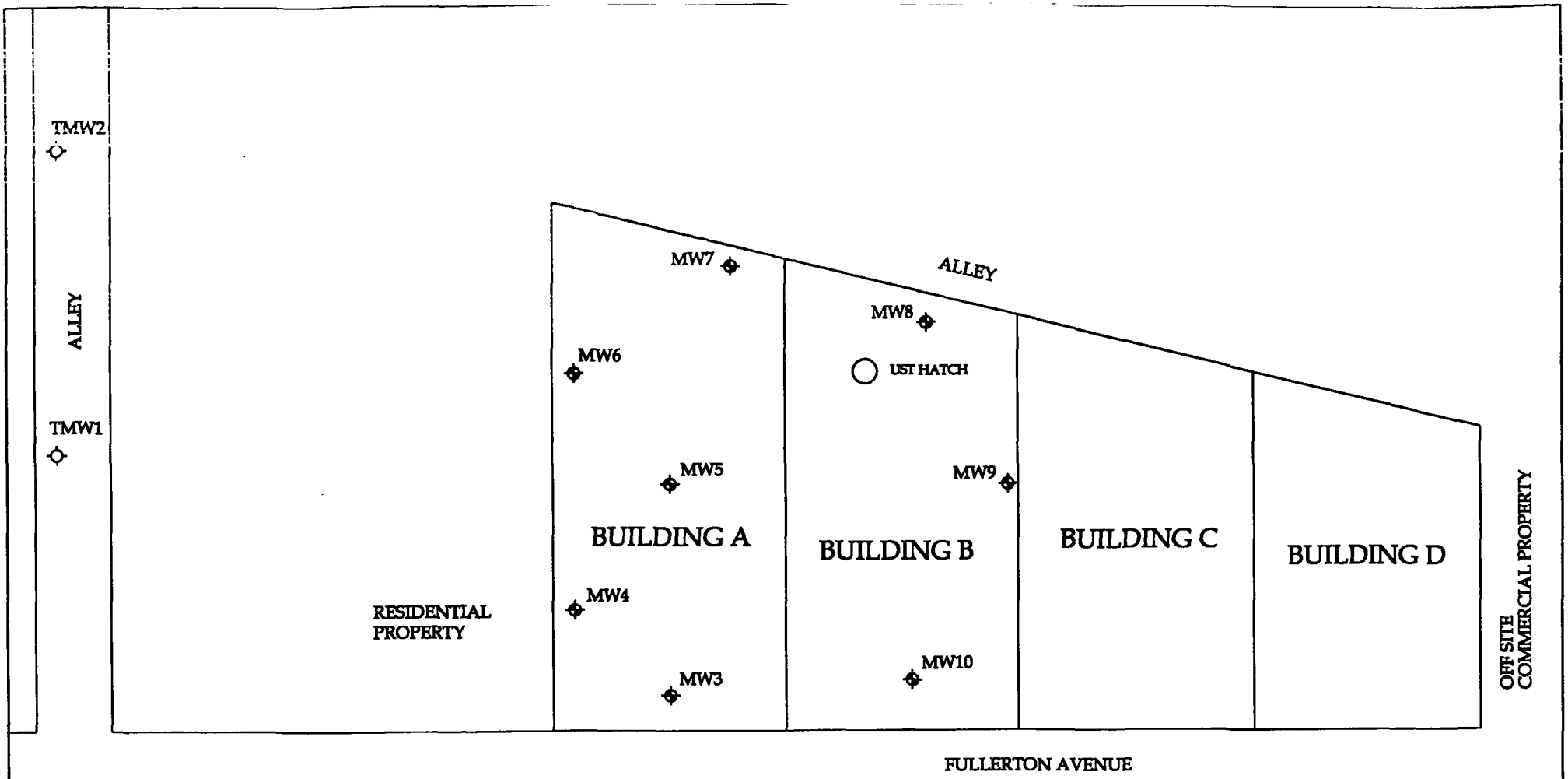
employ.

Encapsulation of the brick interior wall portions of the Building using a spray foam insulation material that hardens to a ridged finish would prohibit direct exposure of chromium precipitate and would provide insulation to the Building at an acceptable cost. The plywood sheeting used to cover the exterior wall area on Fullerton Avenue would need to be replace with a more permanent material such as ridged, high-density, thick plastic, if encapsulation is chosen for the exterior areas. Documentation of the remedial action would likely need to be placed on the deed for the property.

APPENDIX A – SITE MAPS



Seneca Environmental Services		**Former Electro Finishers** **321 West Fullerton Avenue** **Chicago, Illinois**
Date: September 2002	**Site Location Map**	**FIGURE 1**



TEMPORARY MONITORING WELL LOCATIONS

PERMANENT MONITORING WELL LOCATIONS

FILE NAME: FEF

PROJECT NO: 6219801

SITE: FORMER ELECTRO FINISHERS
321 WEST FULLERTON AVENUE
CHICAGO, ILLINOIS
SITE PLAN MAP

Seneca Environmental Services

LUST#: N/A

SCALE: 1" = 30'

FIGURE 2

REVISED: 08/05/02

DATE: 02/19/02

REVIEWED BY: SK

DRAWN BY: RLH

APPENDIX B – SOIL ANALYSIS RESULTS

CTLaboratories

1230 Lange Court
Baraboo, WI 53913-3109
Phone: (800) 228-3012
Fax: (608) 356-2766
www.ctlaboratories.com

ANALYTICAL REPORT

SENECA ENVIRONMENTAL
SCOTT KILLIP
7851 244TH AVENUE
BETTENDORF, IA 52722

Project Name: FORMER ELECTRO FINIS
Contract #: 1799
Project #: 6219801
Folder #: 26097
Purchase Order #: 157005
Arrival Temperature: See COC
Report Date: 5/15/02
Date Received: 5/10/02
Reprint Date:

CTI LAB#: 126017 Sample Description: B5 @ 2.5' Sampled: 5/8/02 1000

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Inorganic Results										
TCLP Hexavalent Chromium	450	ug/L	6.0	20	5		5/14/02	5/14/02	MMC	EPA 7196A
Metals Results										
TCLP Chromium	0.487	mg/L	0.00071	0.0024	1		5/14/02	5/14/02	NAH	EPA 6010B
TCLP Lead	0.0398	mg/L	0.0014	0.0046	1		5/14/02	5/14/02	NAH	EPA 6010B

CTI LAB#: 126018 Sample Description: B2 @ 3' Sampled: 5/8/02 0800

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Inorganic Results										
TCLP Hexavalent Chromium	<1.2	ug/L	1.2	3.9	1		5/14/02	5/14/02	MMC	EPA 7196A
Metals Results										
TCLP Chromium	<0.00071	mg/L	0.00071	0.0024	1		5/14/02	5/14/02	NAH	EPA 6010B
TCLP Lead	0.00704	mg/L	0.0014	0.0046	1		5/14/02	5/14/02	NAH	EPA 6010B

Notes: * Indicates Value in between LOD and LOQ.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: PML

Record Reviewer

WI DNR Lab Certification Number: 15-7066030
DATCP Certification Number: 105-000289

Solid sample results reported on a Dry Weight Basis

TestAmerica
INCORPORATED

ANALYTICAL AND QUALITY CONTROL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Enclosed is the Analytical and Quality Control reports for the following samples submitted to the Cedar Falls Division of TestAmerica, Inc. for analysis.

Sample Number	Sample Description	Date Taken	Date Received
632081	B-7 12' Project #6219801	06/20/2002	06/22/2002
632082	B-8 3' Project #6219801	06/20/2002	06/22/2002
632083	B-8 7' Project #6219801	06/20/2002	06/22/2002
632084	B-8 12' Project #6219801	06/20/2002	06/22/2002
632085	B-9 3' Project #6219801	06/20/2002	06/22/2002
632086	B-9 7' Project #6219801	06/20/2002	06/22/2002
632087	B-9 13' Project #6219801	06/20/2002	06/22/2002
632088	B-10 3' Project #6219801	06/20/2002	06/22/2002
632089	B-10 7' Project #6219801	06/20/2002	06/22/2002
632090	UST Content Project #6219801	06/20/2002	06/22/2002

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TestAmerica, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

Kristin Clay
Project Manager

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682061 SAMPLE DESCRIPTION B-1 3' Project #6219801								DATE-TIME TAKEN 06/20/2002 07:40	
Chromium, hexavalent	<3.0	MSO	mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.4		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1780		
ICP ICLP METALS		IE							
TCLP Chromium (ICP)	<0.040		mg/L	0.020	07/03/2002	heh	1780	1650	SW 6010B
TCLP Lead (ICP)	<0.20		mg/L	0.10	07/03/2002	heh	1780	1652	SW 6010B
TCLP EXTRACTION	complete				06/25/2002	jlc	1390		SW 1311
SAMPLE NO. 682062 SAMPLE DESCRIPTION B-1 7' Project #6219801								DATE-TIME TAKEN 06/20/2002 07:45	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.3		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1779		
ICP ICLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/01/2002	heh	1779	1645	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L		07/01/2002	heh	1779	1647	SW 6010B
TCLP EXTRACTION	complete				06/25/2002	jlc	1390		SW 1311

IE - Elevated Reporting Limit due to interelement interference.
MSO - MS and/or MSD are out of control for this analyte

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17351 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682063	SAMPLE DESCRIPTION B-1 13' Project #6219801							DATE-TIME TAKEN 06/20/2002 08:05	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.3		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1780		
ICP TCLP METALS		IE							
TCLP Chromium (ICP)	<0.060		mg/L	0.020	07/03/2002	llw	1780	1650	SW 6010B
TCLP Lead (ICP)	<0.30		mg/L	0.10	07/03/2002	heh	1780	1652	SW 6010B
TCLP EXTRACTION	complete				06/25/2002	jlc	1390		SW 1311
SAMPLE NO. 682064	SAMPLE DESCRIPTION B-2 3' Project #6219801							DATE-TIME TAKEN 06/20/2002 08:50	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.1		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1779		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/01/2002	llw	1779	1645	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/01/2002	heh	1779	1647	SW 6010B
TCLP EXTRACTION	complete				06/25/2002	jlc	1390		SW 1311

IE - Elevated Reporting Limit due to interelement interference.

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682065	SAMPLE DESCRIPTION B-2 7' Project #6219801							DATE-TIME TAKEN 06/20/2002 08:55	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.1		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1779		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/01/2002	llw	1779	1645	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/01/2002	heh	1779	1647	SW 6010B
TCLP EXTRACTION	complete				06/25/2002	jlc	1390		SW 1311
SAMPLE NO. 682066	SAMPLE DESCRIPTION B-2 13' Project #6219801							DATE-TIME TAKEN 06/20/2002 09:00	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.0		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1779		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/01/2002	llw	1779	1645	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/01/2002	heh	1779	1647	SW 6010B
TCLP EXTRACTION	complete				06/25/2002	jlc	1390		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682067	SAMPLE DESCRIPTION B-3 3' Project #6219801							DATE-TIME TAKEN 06/20/2002 09:45	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	7.8		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	heh	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L		07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311
SAMPLE NO. 682068	SAMPLE DESCRIPTION B-3 8' Project #6219801							DATE-TIME TAKEN 06/20/2002 09:50	
Chromium, hexavalent	40		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.0		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	0.027		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682069	SAMPLE DESCRIPTION B-3 12' Project #6219801							DATE-TIME TAKEN 06/20/2002 10:00	
Chromium, hexavalent	140		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	7.8		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	1.8		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311
SAMPLE NO. 682070	SAMPLE DESCRIPTION B-4 3' Project #6219801							DATE-TIME TAKEN 06/20/2002 10:10	
Chromium, hexavalent	98		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.2		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	1.8		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682071	SAMPLE DESCRIPTION B-4 7' Project #6219801								DATE-TIME TAKEN 06/20/2002 10:15
Chromium, hexavalent	390		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	4.1		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	66		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311
SAMPLE NO. 682072	SAMPLE DESCRIPTION B-4 13' Project #6219801								DATE-TIME TAKEN 06/20/2002 10:30
Chromium, hexavalent	390		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	7.9		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	15		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682073	**SAMPLE DESCRIPTION B-5 3' Project #6219801**								**DATE-TIME TAKEN 06/20/2002 10:40**
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.3		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311
SAMPLE NO. 682074	**SAMPLE DESCRIPTION B-5 8' Project #6219801**								**DATE-TIME TAKEN 06/20/2002 10:45**
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.0		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	0.026		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682075	**SAMPLE DESCRIPTION B-5 12' Project #6219801**								**DATE-TIME TAKEN 06/20/2002 10:50**
Chromium, hexavalent	6.8		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	7.9		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311
SAMPLE NO. 682076	**SAMPLE DESCRIPTION B-6 3' Project #6219801**								**DATE-TIME TAKEN 06/20/2002 11:00**
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	7.9		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682077	SAMPLE DESCRIPTION B-6 7' Project #6219801							DATE-TIME TAKEN 06/20/2002 11:10	
Chromium, hexavalent	180		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	4.4		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				06/28/2002	tdo	1781		
ICP ICLP METALS									
TCLP Chromium (ICP)	32		mg/L	0.020	07/02/2002	llw	1781	1646	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1781	1648	SW 6010B
TCLP EXTRACTION	complete				06/26/2002	jlc	1391		SW 1311
SAMPLE NO. 682078	SAMPLE DESCRIPTION B-6 10' Project #6219801							DATE-TIME TAKEN 06/20/2002 11:15	
Chromium, hexavalent	370		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	7.1		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP ICLP METALS									
TCLP Chromium ICP)	26	N,*	mg/L	0.020	07/02/2002	heh	1782	1647	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311

* - Sample concentration is greater than four times the spike concentration
N - Spike recovery for this analyte is out of control

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682079	SAMPLE DESCRIPTION B-7 3' Project #6219801							DATE-TIME TAKEN 06/20/2002 11:55	
Chromium, hexavalent	11		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	8.1		units	0.1	06/28/2002	sas		1348	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	0.706		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP)	<0.20	R	mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311
SAMPLE NO. 682080	SAMPLE DESCRIPTION B-7 6' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:00	
Chromium, hexavalent	9.4		mg/kg	3.0	06/26/2002	lbb		96	SW 7196A
Solid pH Measured in Water	12.3		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1783		
ICP TCLP METALS		IE							
TCLP Chromium (ICP)	<0.080		mg/L	0.020	07/05/2002	heh	1783	1652	SW 6010B
TCLP Lead (ICP)	<0.40		mg/L		07/05/2002	heh	1783	1654	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311

IE - Elevated Reporting Limit due to interelement interference.
R - Reporting limit elevated due to matrix interferences

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682081	SAMPLE DESCRIPTION B-7 12' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:10	
Chromium, hexavalent	<3.0	MSO	mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	7.9		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311
SAMPLE NO. 682082	SAMPLE DESCRIPTION B-8 3' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:25	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	8.2		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	0.023		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311

MSO - MS and/or MSD are out of control for this analyte

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682083	SAMPLE DESCRIPTION B-8 7' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:30	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	7.4		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311
SAMPLE NO. 682084	SAMPLE DESCRIPTION B-8 12' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:35	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	8.0		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/03/2002	tdo	1784		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/03/2002	heh	1784	1651	SW 6010B
TCLP Lead (ICP	<0.10		mg/L	0.10	07/03/2002	heh	1784	1653	SW 6010B
TCLP EXTRACTION	complete				07/01/2002	jlc	1393		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682085	SAMPLE DESCRIPTION B-9 3' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:45	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	7.5		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311
SAMPLE NO. 682086	SAMPLE DESCRIPTION B-9 7' Project #6219801							DATE-TIME TAKEN 06/20/2002 12:50	
Chromium, hexavalent	<3.0		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	7.1		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	0.076		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 662087	SAMPLE DESCRIPTION B-9 13' Project #6219801								DATE-TIME TAKEN 06/20/2002 13:00
Chromium, hexavalent	10		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	7.8		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	<0.020		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311
SAMPLE NO. 662088	SAMPLE DESCRIPTION B-10 3' Project #6219801								DATE-TIME TAKEN 06/20/2002 13:10
Chromium, hexavalent	520		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	6.7		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	37		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP)	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682089	**SAMPLE DESCRIPTION B-10 7' Project #6219801**								**DATE-TIME TAKEN 06/20/2002 13:15**
Chromium, hexavalent	43		mg/kg	3.0	06/26/2002	lbb		97	SW 7196A
Solid pH Measured in Water	6.9		units	0.1	06/28/2002	sas		1349	SW 9045
TCLP Metals Digest	Complete				07/01/2002	tdo	1782		
ICP TCLP METALS									
TCLP Chromium (ICP)	5.2		mg/L	0.020	07/02/2002	llw	1782	1647	SW 6010B
TCLP Lead (ICP	<0.10		mg/L	0.10	07/02/2002	heh	1782	1649	SW 6010B
TCLP EXTRACTION	complete				06/28/2002	jlc	1392		SW 1311
SAMPLE NO. 682090	**SAMPLE DESCRIPTION UST Content Project #6219801**								**DATE-TIME TAKEN 06/20/2002 15:00**
Cyanide, Amenable	<0.5		mg/kg	0.5	06/28/2002	lbb		686	SW 9010
Cyanide,Total	4.5		mg/kg	1.0	06/28/2002	lbb		568	SW 9012
ICP Metals Prep (Solid)	1.029		g		06/26/2002	mrm	1211		
ICP Metals-Solid	Complete		mg/kg		07/06/2002	heh		1537	SW 6010B
Chromium, ICP	17		mg/kg	1.0	07/06/2002	heh	1211	2036	SW 6010B
Prep PCB'S OIL	complete				06/24/2002	kak	1152		SW 3580
PCB'S - (OIL)									
PCB-1016	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082

TestAmerica INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17351 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Client Project ID: Former Electro Finishers

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 682090	SAMPLE DESCRIPTION UST Content Project #6219801								DATE-TIME TAKEN 06/20/2002 15:00
PCB-1221	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB-1232	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB-1242	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB-1248	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB-1254	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB-1260	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB-1268	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
PCB's - Total	<2.0		ug/g	2.0	06/26/2002	kak	1152	1643	SW 8082
Tetrachlorometaxylene (Surr.)	99		%		06/26/2002	kak	1152	1643	
Decachlorobiphenyl (Surr.)	95		%		06/26/2002	kak	1152	1643	

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	CCV True Value	Units	CCV Conc Found	CCV % Rec	Flag	Date Analyzed
Chromium, hexavalent		96	0.300	mg/kg	0.3047	102		06/26/2002
Chromium, hexavalent		96	0.300	mg/kg	0.3050	102		06/26/2002
Chromium, hexavalent		96	0.300	mg/kg	0.3144	105		06/26/2002
Chromium, hexavalent		96	0.300	mg/kg	0.3097	103		06/26/2002
Chromium, hexavalent		96	0.300	mg/kg	0.3092	103		06/26/2002
Chromium, hexavalent		97	0.300	mg/kg	0.3144	105		06/26/2002
Chromium, hexavalent		97	0.300	mg/kg	0.3097	103		06/26/2002
Chromium, hexavalent		97	0.300	mg/kg	0.3092	103		06/26/2002
Cyanide, Amenable		686	237.5	ug/L	241	102		06/28/2002
Cyanide, Amenable		686	118.8	ug/L	122	103		06/28/2002
Cyanide,Total		568	237.5	ug/L	241	102		06/28/2002
Cyanide,Total		568	118.8	ug/L	122	103		06/28/2002
Solid pH Measured in Water		1348	7.00	units	7.03	100		06/28/2002
Solid pH Measured in Water		1348	7.00	units	7.03	100		06/28/2002
Solid pH Measured in Water		1348	4.00	units	4.01	100		06/28/2002
Solid pH Measured in Water		1348	7.00	units	7.03	100		06/28/2002
Solid pH Measured in Water		1348	4.00	units	4.01	100		06/28/2002
Solid pH Measured in Water		1349	7.00	units	7.01	100		06/28/2002
Solid pH Measured in Water		1349	4.00	units	4.01	100		06/28/2002
ICP Metals-Solid		1537	1.0	mg/L	1.0	100		07/06/2002
Chromium, ICP		2036	5.0	mg/L	5.14	103		07/06/2002
Chromium, ICP		2036	5.0	mg/L	5.07	101		07/06/2002
ICP TCLP METALS								
TCLP Chromium (ICP)		1645	5.00	mg/L	4.98	100		07/01/2002
TCLP Chromium (ICP)		1646	5.00	mg/L	4.98	100		07/02/2002
TCLP Chromium (ICP)		1646	5.00	mg/L	4.94	99		07/02/2002
TCLP Chromium (ICP)		1647	5.00	mg/L	4.86	97		07/02/2002
TCLP Chromium (ICP)		1647	5.00	mg/L	4.86	97		07/02/2002
TCLP Chromium (ICP)		1650	5.00	mg/L	5.06	101		07/03/2002
TCLP Chromium (ICP)		1651	5.00	mg/L	5.06	101		07/03/2002
TCLP Chromium (ICP)		1651	5.00	mg/L	5.08	102		07/03/2002
TCLP Chromium (ICP)		1652	5.00	mg/L	4.83	97		07/05/2002

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	CCV True Value	Units	CCV Conc Found	CCV % Rec	Flag	Date Analyzed
TCLP Lead (ICP)		1647	5.00	mg/L	4.84	97		07/01/2002
TCLP Lead (ICP)		1648	5.00	mg/L	4.96	99		07/02/2002
TCLP Lead (ICP)		1648	5.00	mg/L	4.86	97		07/02/2002
TCLP Lead (ICP)		1649	5.00	mg/L	4.86	97		07/02/2002
TCLP Lead (ICP)		1649	5.00	mg/L	4.89	98		07/02/2002
TCLP Lead (ICP)		1649	5.00	mg/L	5.02	100		07/02/2002
TCLP Lead (ICP)		1649	5.00	mg/L	4.89	98		07/02/2002
TCLP Lead (ICP)		1652	5.00	mg/L	5.11	102		07/03/2002
TCLP Lead (ICP)		1653	5.00	mg/L	5.11	102		07/03/2002
TCLP Lead (ICP)		1653	5.00	mg/L	5.04	101		07/03/2002
TCLP Lead (ICP)		1653	5.00	mg/L	5.04	101		07/03/2002
TCLP Lead (ICP)		1653	5.00	mg/L	5.11	102		07/03/2002
TCLP Lead (ICP)		1654	5.00	mg/L	4.86	97		07/05/2002
TCLP Lead (ICP)		1654	5.00	mg/L	4.91	98		07/05/2002
PCB'S - (OIL)								
PCB-1242		1643	0.96	ppm	0.927	97		06/26/2002
PCB'S - (OIL)								
PCB-1242		1643	0.96	ppm	0.950	99		06/26/2002

QUALITY CONTROL REPORT
BLANKS

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	Blank Value	Flag	Units	Quantitation Limit	Date Analyzed
Chromium, hexavalent		96	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		96	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		96	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		96	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		96	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		97	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		97	<3.0		mg/kg	3.0	06/26/2002
Chromium, hexavalent		97	<3.0		mg/kg	3.0	06/26/2002
Cyanide, Amenable		686	<0.5		mg/kg	0.5	06/28/2002
Cyanide, Total		568	<1.0		mg/kg	1.0	06/28/2002
Chromium, ICP	1211	2031	<0.020		mg/L	1.0	07/06/2002
ICP TCLP METALS							
TCLP Chromium (ICP)	1779	1645	<0.020		mg/L	0.020	07/01/2002
TCLP Chromium (ICP)	1781	1646	<0.020		mg/L	0.020	07/02/2002
TCLP Chromium (ICP)	1782	1647	<0.020		mg/L	0.020	07/02/2002
TCLP Chromium (ICP)	1780	1650	<0.020		mg/L	0.020	07/03/2002
TCLP Chromium (ICP)	1784	1651	<0.020		mg/L	0.020	07/03/2002
TCLP Chromium (ICP)	1783	1652	<0.020		mg/L	0.020	07/05/2002
TCLP Lead (ICP)	1779	1647	<0.10		mg/L	0.10	07/01/2002
TCLP Lead (ICP)		1648	<0.10		mg/L	0.10	07/02/2002
TCLP Lead (ICP)	1782	1649	<0.10		mg/L	0.10	07/02/2002
TCLP Lead (ICP)		1649	<0.10		mg/L	0.10	07/02/2002
TCLP Lead (ICP)	1780	1652	<0.10		mg/L	0.10	07/03/2002
TCLP Lead (ICP)	1784	1653	<0.10		mg/L	0.10	07/03/2002
TCLP Lead (ICP)		1653	<0.10		mg/L	0.10	07/03/2002
TCLP Lead (ICP)		1654	<0.10		mg/L	0.10	07/05/2002
PCB'S - (OIL)							
PCB-1016	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB-1221	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB-1232	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB-1242	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB-1248	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB-1254	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB-1260	1152	1640	<2.0		ug/g	2.0	06/17/2002

QUALITY CONTROL REPORT
BLANKS

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	Blank Value	Flag	Units	Quantitation Limit	Date Analyzed
PCB-1268	1152	1640	<2.0		ug/g	2.0	06/17/2002
PCB's - Total	1152	1640	<2.0		ug/g	2.0	06/17/2002
Tetrachlorometaxylene (Surr.)	1152	1640	76		%		06/17/2002
Decachlorobiphenyl (Surr.)	1152	1640	41		%		06/17/2002
PCB'S - (OIL)							
PCB-1016	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1221	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1232	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1242	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1248	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1254	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1260	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB-1268	1152	1625	<2.0		ug/g	2.0	05/14/2002
PCB's - Total	1152	1625	<2.0		ug/g	2.0	05/14/2002
Tetrachlorometaxylene (Surr.)	1152	1625	76		%		05/14/2002
Decachlorobiphenyl (Surr.)	1152	1625	41		%		05/14/2002
PCB'S - (OIL)							
PCB-1016	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1221	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1232	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1242	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1248	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1254	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1260	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB-1268	1152	1643	<2.0		ug/g	2.0	06/26/2002
PCB's - Total	1152	1643	<2.0		ug/g	2.0	06/26/2002
Tetrachlorometaxylene (Surr.)	1152	1643	96		%		06/26/2002
Decachlorobiphenyl (Surr.)	1152	1643	58		%		06/26/2002

QUALITY CONTROL REPORT
LABORATORY CONTROL STANDARD

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	LCS True Conc	Units	LCS Conc Found	LCS % Rec.	Flag	Date Analyzed
Cyanide, Amenable		686	0.190	mg/kg	0.192	101		06/28/2002
Cyanide,Total		568	0.190	mg/kg	0.192	101		06/28/2002
ICP Metals-Solid		1537	1.0	mg/L	1.0	100		07/06/2002
Chromium, ICP	1211	2031	1.0	mg/L	0.9964	100		07/06/2002
Chromium, ICP		2036	1.0	mg/L	0.9964	100		07/06/2002
ICP TCLP METALS								
TCLP Chromium (ICP)	1779	1645	1.00	mg/L	1.00	100		07/01/2002
TCLP Chromium (ICP)	1781	1646	1.00	mg/L	0.9714	97		07/02/2002
TCLP Chromium (ICP)	1782	1647	1.00	mg/L	0.9877	99		07/02/2002
TCLP Chromium (ICP)	1780	1650	1.00	mg/L	1.02	102		07/03/2002
TCLP Chromium (ICP)	1784	1651	1.00	mg/L	1.04	104		07/03/2002
TCLP Chromium (ICP)	1783	1652	1.00	mg/L	0.9830	98		07/05/2002
TCLP Lead (ICP)	1779	1647	2.00	mg/L	1.96	98		07/01/2002
TCLP Lead (ICP)		1648	2.00	mg/L	1.95	98		07/02/2002
TCLP Lead (ICP)	1782	1649	2.00	mg/L	1.95	98		07/02/2002
TCLP Lead (ICP)		1649	2.00	mg/L	1.95	98		07/02/2002
TCLP Lead (ICP)	1780	1652	2.00	mg/L	2.08	104		07/03/2002
TCLP Lead (ICP)	1784	1653	2.00	mg/L	2.03	102		07/03/2002
TCLP Lead (ICP)		1653	2.00	mg/L	2.03	102		07/03/2002
TCLP Lead (ICP)		1654	2.00	mg/L	1.94	97		07/05/2002
PCB'S - (OIL)								
PCB-1242	1152	1640	4.1	ug/g	3.0	73		06/17/2002
Tetrachlorometaxylene (Surr.)	1152	1640	105	%	102	97		06/17/2002
Decachlorobiphenyl (Surr.)	1152	1640	105	%	56	53		06/17/2002

QUALITY CONTROL REPORT
MATRIX SPIKE

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	Conc. Spike Added	Units	Sample Result	Conc. MS Result	MS % Rec.	Flag	Date Analyzed
ICP TCLP METALS									
TCLP Chromium (ICP)	1779	1645	1.00	mg/L	<0.020	0.9704	97		07/01/2002
TCLP Chromium (ICP)	1779	1645	1.00	mg/L	<0.020	0.9373	94		07/01/2002
TCLP Chromium (ICP)	1779	1645	1.00	mg/L	<0.020	0.8793	88		07/01/2002
TCLP Chromium (ICP)	1781	1646	1.00	mg/L	<0.020	0.9821	98		07/02/2002
TCLP Chromium (ICP)	1782	1647	1.00	mg/L	<0.020	0.9150	92		07/02/2002
TCLP Chromium (ICP)	1782	1647	1.00	mg/L	26	27.5	150	N,*	07/03/2002
TCLP Chromium (ICP)	1780	1650	1.00	mg/L	0.615	1.63	102		07/03/2002
TCLP Chromium (ICP)	1780	1650	1.00	mg/L	<0.040	0.9958	100		07/03/2002
TCLP Chromium (ICP)	1784	1651	1.00	mg/L	<0.020	0.9964	100		07/03/2002
TCLP Chromium (ICP)	1784	1651	1.00	mg/L	<0.020	1.02	102		07/03/2002
TCLP Chromium (ICP)	1783	1652	1.00	mg/L	<0.020	1.04	104		07/05/2002
TCLP Lead (ICP)		1647	2.00	mg/L	<0.10	1.74	87		07/01/2002
TCLP Lead (ICP)	1779	1647	2.00	mg/L	<0.10	1.88	94		07/01/2002
TCLP Lead (ICP)	1779	1647	2.00	mg/L	<0.10	1.65	82		07/01/2002
TCLP Lead (ICP)		1648	2.00	mg/L	<0.10	1.83	92		07/02/2002
TCLP Lead (ICP)	1782	1649	1.92	mg/L	<0.10	1.81	94		07/02/2002
TCLP Lead (ICP)	1782	1649	2.00	mg/L	<0.30	1.84	92		07/02/2002
TCLP Lead (ICP)		1652	2.00	mg/L	<0.20	1.91	96		07/03/2002
TCLP Lead (ICP)	1780	1652	2.00	mg/L	<0.30	1.84	92		07/03/2002
TCLP Lead (ICP)		1653	2.00	mg/L	<0.10	1.86	93		07/03/2002
TCLP Lead (ICP)	1784	1653	2.00	mg/L	<0.10	1.89	94		07/03/2002
TCLP Lead (ICP)	1784	1653	2.00	mg/L	4.4	6.93	126	N	07/03/2002
TCLP Lead (ICP)		1654	2.00	mg/L	<0.40	1.72	86		07/05/2002

* - Sample concentration is greater than four times the spike concentration
N - Spike recovery for this analyte is out of control

QUALITY CONTROL REPORT
DUPLICATES

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch No.	Run Batch No.	Sample Result	Duplicate Sample Result	Units	RPD	Flag	Date Analyzed
Solid pH Measured in Water		1348	7.5	8.0	units	6.5		06/28/2002
Solid pH Measured in Water		1348	8.2	8.2	units	0.0		06/28/2002
Solid pH Measured in Water		1349	12.3	12.2	units	0.8		06/28/2002

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE

SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722
Scott Killip

07/17/2002

Job Number: 02.07542

Analyte	Prep Batch Number	Run Batch Number	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
Chromium, hexavalent		96	<3.0	<3.0	9.98	mg/kg	0	<3.0	9.98	mg/kg	0	
Chromium, hexavalent		97	6.77	<3.0	9.54	mg/kg	71.0	<3.0	9.54	mg/kg	0	
Cyanide, Total		568	9.19	<1.0	9.82	mg/kg	93.6	9.29	9.93	mg/kg	93.6	1.1
Chromium, ICP	1211	2036	626	710	98.5	mg/kg	0.0	664	96.9	mg/kg	0.0	5.9
PCB's - (OIL)												
PCB-1242	1152	1640	3.0	<2.0	3.1	ug/g	96.8	3.0	3.0	ug/g	100.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

RPD = Relative Percent Difference

TestAmerica Job Number: 02.07542

ATTACHMENTS

Following are the sample receipt log and the chain of custody applicable to this analytical report.

For questions regarding this report, please contact the individual who signed the analytical report.

Sample Receipt and Temperature Log Form

Client: Seneca Project: _____

City: _____

Date: 6/22/02 Receiver's Initials UP Time (if Applicable): _____

Temperature Record

Cooler #1: 3 ° C / On Ice ☐ Temp. Blank

Cooler #2: 4 ° C / On Ice ☒ Temp. Blank

Cooler #3: _____ ° C / On Ice ☐ Temp. Blank

Cooler #4: _____ ° C / On Ice ☐ Temp. Blank

Thermometer:

☐ IR-905085 ☐ CF07-03-T1

☒ IR-809065 ☐ CF07-03-T2

Couriers

☐ Airborne	☐ Speedy
☐ UPS	☐ TA Courier
☒ Velocity	☐ TA Field Svs
☐ FedEx	☐ Client
☐ DHL	
☐ US Postal	☐ Other

☐ Samples Not Received in a Cooler

☐ Temperature Not Taken

☐ Samples Received Within 6 hrs of sampling

COC Completed Correctly? ☐ Yes ☐ No
(Cite inconsistencies below)

Custody Seals Intact? ☐ Yes ☐ No
(If Applicable)

Cooler Checklist (Check indicates conformance failure)

	Received Broken		Improper Container		Temperature*
	Improperly Preserved		Missing Sample		Extra Sample
	Missing Label		Sample Past Hold Date		Improper Label
	Insufficient Sample Volume		Other:		

Client Sample IDs:

Initial/Date: mf 6/24/02

Remarks/Action Taken:

Pls. Scott K., does need Cr. #.

Log-In By:

NR MF EM

OT _____

*Refer to SOP CF01-01 for Temperature Criteria

TestAmerica INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613
Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

4

Company: Seneca
Send Report To:
Address:
City/State/Zip Code:
Telephone Number: Fax:
Sampled by: (Print Name) Todd Feldermann
(Signature) Todd J Feldermann

Your PO #: 157931
Invoice To:
TA Quote #: 02.0192
Project Name: Former Electro Finishing
Project Number: 6219801
Project Manager: Scott Killip
Proj. Mgr. Telephone:

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:	Analyze For: TCLP cR, cd+6	Pb	RUSH TAT (Must call ahead!)	Standard TAT	Fax Results	Send QC with report
B4 @ 7'	6/20	10:15	1	X			X												X		X	X		X		
B4 @ 13'	6/20	10:30	1	X			X												X		X	X		X		
B5 @ 3'	6/20	10:40	1	X			X												X		X	X		X		
B5 @ 8'	6/20	10:45	1	X			X												X		X	X		X		
B5 @ 12'	6/20	10:50	1	X			X												X		X	X		X		
B6 @ 3'	6/20	11:00	1	X			X												X		X	X		X		
B6 @ 7'	6/20	11:10	1	X			X												X		X	X		X		
B6 @ 10'	6/20	11:15	1	X			X												X		X	X		X		
B7 @ 3'	6/20	11:55	1	X			X												X		X	X		X		
B7 @ 6'	6/20	12:00	1	X			X												X		X	X		X		

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
***NOTICE:* Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Todd J Feldermann	6/21/02	8:00 pm	Dan Cotanza	6/21/02	1230	Dan Cotanza	6/21/02	1500
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by: Marlene Stevens	Date 6/22/02	Time 800	Temperature Upon Receipt:			Laboratory Comments:		

TestAmerica INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613
Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

3

Company: Seneca
Send Report To:
Address:
City/State/Zip Code:
Telephone Number: Fax:
Sampled by: (Print Name) Todd Felderman
(Signature) Todd J Fell

Your PO #: 157931
Invoice To:
TA Quote #: 02.0192
Project Name: Former Electro Finishers
Project Number: 6219801
Project Manager: Scott Killip
Proj. Mgr. Telephone:

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:	Analyze For: TCLP CR	CR+6	Pb	RUSH TAT (Must call ahead!)	Standard TAT	Fax Results	Send QC with report
B1 @ 3'	6/20	7:40	1	X			X												X		X	X			X		
B1 @ 7'	6/20	7:45	1	X			X												X		X	X			X		
B1 @ 13'	6/20	8:05	1	X			X												X		X	X			X		
B2 @ 3'	6/20	8:50	1	X			X												X		X	X			X		
B2 @ 7'	6/20	8:55	1	X			X												X		X	X			X		
B2 @ 13'	6/20	9:00	1	X			X												X		X	X			X		
B3 @ 3'	6/20	9:45	1	X			X												X		X	X			X		
B3 @ 8'	6/20	9:50	1	X			X												X		X	X			X		
B3 @ 12'	6/20	10:00	1	X			X												X		X	X			X		
B4 @ 3	6/20	10:10	1	X			X												X		X	X			X		

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
***NOTICE:* Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
Todd J Fell	6/21/07	5:00	Dan Cotton	6/21/07	1230	Dan Cotton	6/21/07	1500
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by: Helene Tacciani	Date 6/22/07	Time 800	Temperature Upon Receipt:			Laboratory Comments:		

TestAmerica
INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

5

Company: Seneca
Send Report To:
Address.
City/State/Zip Code:
Telephone Number: Fax:
Sampled by: (Print Name) Justin Smith
(Signature)

Your PO #: 157931
Invoice To:
TA Quote #: 02.0192
Project Name: Former Electro Finishes
Project Number: 6219801
Project Manager: Scott Killip
Proj. Mgr. Telephone:

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass(Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify: GC/Fuel oil	Analyze For: TCLP CR	CR +6	Pb					Total CR	Amenable CN	PCB's		RUSH TAT (Must call ahead!)	Standard TAT	Fax Results	Send QC with report
B7 @ 12'	6.20.02	12[40]/p	1	6			X												X		X	X	X											
B8 @ 3'	6.20.02	12[25]/p	1	6			X												X		X	X	X											
B8 @ 7'	6.20.02	12[30]/p	1	6			X												X		X	X	X											
B8 @ 12'	6.20.02	12[35]/p	1	6			X												X		X	X	X											
B9 @ 3'	6.20.02	12[45]/p	1	6			X												X		X	X	X											
B9 @ 7'	6.20.02	12[50]/p	1	6			X												X		X	X	X											
B9 @ 13'	6.20.02	1[00]/p	1	6			X												X		X	X	X											
B10 @ 3'	6.20.02	1[10]/p	1	6			X												X		X	X	X											
B10 @ 7'	6.20.02	1[15]/p	1	6			X												X		X	X	X											
UST Content	6.20.02	3[00]/p	1	6		N	X													X							X	X	X					

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:
UST Content - seperate

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	6.21.02	3[00]/p		6/21/02	1230		6/21/02	1500
Shipped Via:			Comments:			Shipped Via:		
Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:			Laboratory Comments:		
	6/22/02	800						

TestAmerica INCORPORATED

ANALYTICAL AND QUALITY CONTROL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/17/2002

Job Number: 02.07542

Enclosed is the Analytical and Quality Control reports for the following samples submitted to the Cedar Falls Division of TestAmerica, Inc. for analysis.

Sample Number	Sample Description			Date Taken	Date Received
682061	B-1	3'	Project #6219801	06/20/2002	06/22/2002
682062	B-1	7'	Project #6219801	06/20/2002	06/22/2002
682063	B-1	13'	Project #6219801	06/20/2002	06/22/2002
682064	B-2	3'	Project #6219801	06/20/2002	06/22/2002
682065	B-2	7'	Project #6219801	06/20/2002	06/22/2002
682066	B-2	13'	Project #6219801	06/20/2002	06/22/2002
682067	B-3	3'	Project #6219801	06/20/2002	06/22/2002
682068	B-3	8'	Project #6219801	06/20/2002	06/22/2002
682069	B-3	12'	Project #6219801	06/20/2002	06/22/2002
682070	B-4	3'	Project #6219801	06/20/2002	06/22/2002
682071	B-4	7'	Project #6219801	06/20/2002	06/22/2002
682072	B-4	13'	Project #6219801	06/20/2002	06/22/2002
682073	B-5	3'	Project #6219801	06/20/2002	06/22/2002
682074	B-5	8'	Project #6219801	06/20/2002	06/22/2002
682075	B-5	12'	Project #6219801	06/20/2002	06/22/2002
682076	B-6	3'	Project #6219801	06/20/2002	06/22/2002
682077	B-6	7'	Project #6219801	06/20/2002	06/22/2002
682078	B-6	10'	Project #6219801	06/20/2002	06/22/2002
682079	B-7	3'	Project #6219801	06/20/2002	06/22/2002
682080	B-7	6'	Project #6219801	06/20/2002	06/22/2002

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TestAmerica, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

Kristin Clay
Project Manager

APPENDIX C – TABULATED SOIL ANALYSIS RESULTS AND MAPS

TABLE 1
PREVIOUS SOIL AND MORTAR SAMPLE ANALYSIS RESULTS

Sample	CR Conc. (Total)	CR Conc. (TCLP)	Conc. (total CR +6)
FS1	6700	NA	42
FS2	5500	0.26	46
FS3	1300	1.2	0.83
FS4	29000	120	2200
FC1	52000	2000	37000
FC2	7100	260	4700
FC3	4800	180	2900
FC4	31000	1600	17000
Bldg A**	17200		

All values in parts per million (PPM)
GW lwach values apply to total CR/TCLP
GW leach value sam for residential vs non-residential
Non-res. soil COs for total CR and CR+6 are identical
*TCLP
**Collected by CDE, location not defined
Zadrozny sump water = 302.239 mg/L (IEPA 3/9/00)
Zadrozny sump water = 13.0 mg/L (TN&N 1/25/01)
MWRDGC discharge =25 mg/L

TACO REMEDIATION OBJECTIVES

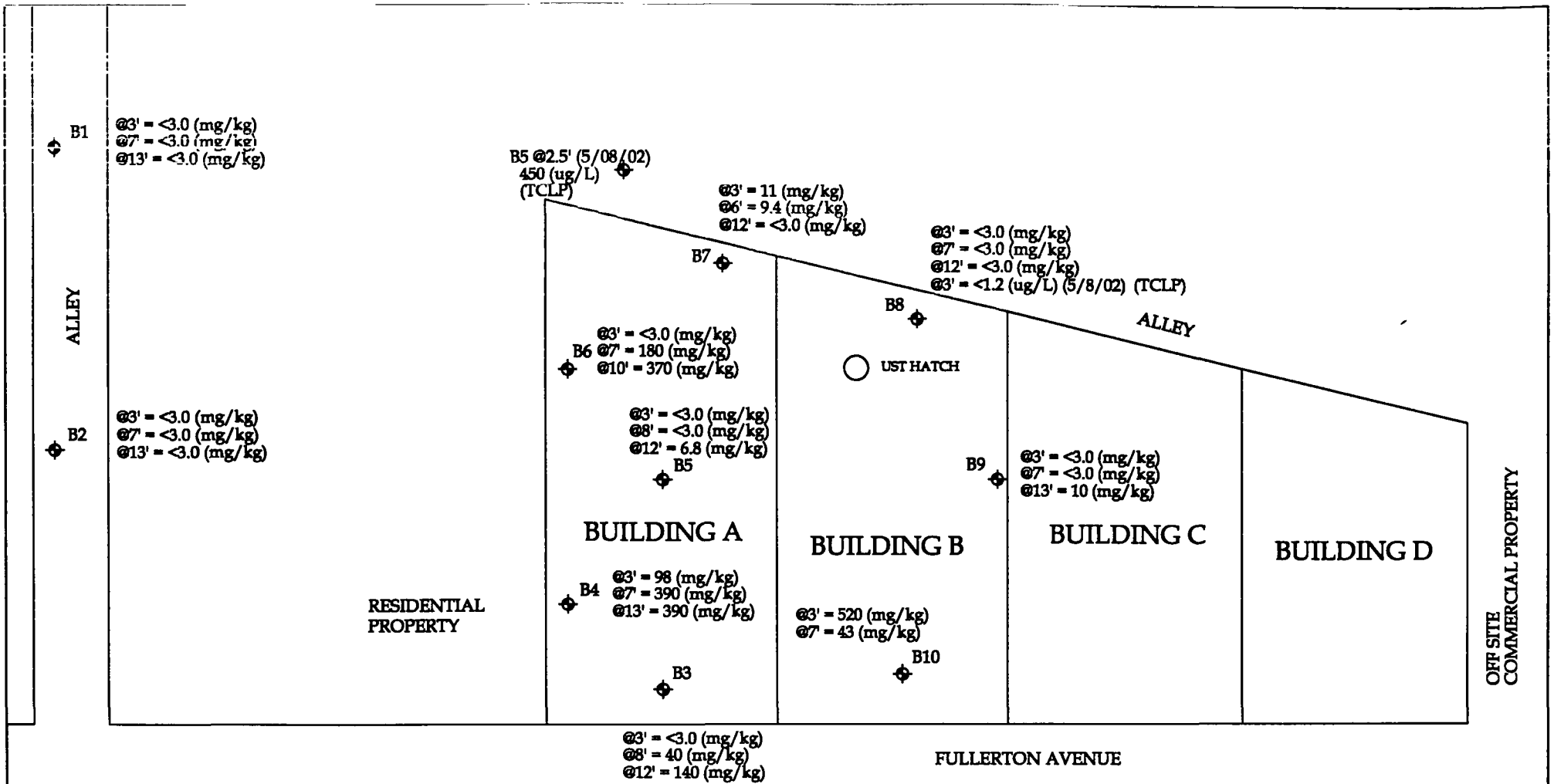
NON-RESIDENTIAL				*RESIDENTIAL*			
INDUST./COMMERCAL		CONST. WORKER					
Ingestion CO	Inhalation CO	Ingestion CO	Inhalation CO	Ingestion CO	Inhalation CO	GW Leach I (TCLP)	GW Leach II (TCLP)
6100	420	4100	690	230	270	0.1	1

SAMPLE DISCRIPTION

FS1 - Soil debris in northwest yard
FS2 - Soil debris in northwest yard
FS3 - Soil from catch basin in northwest yard
FS4 - Soil above UST hatch
FC1 - Mortar in southwest quarter of Building A
FC2 - Mortar of doorway from Building A to shed
FC3 - Mortar of east interior wall of Building A
FC4 - Mortar of exterior south wall of Building A

TABLE 1A
SOIL ANALYSIS RESULTS
FORMER ELECTRO FINISHERS

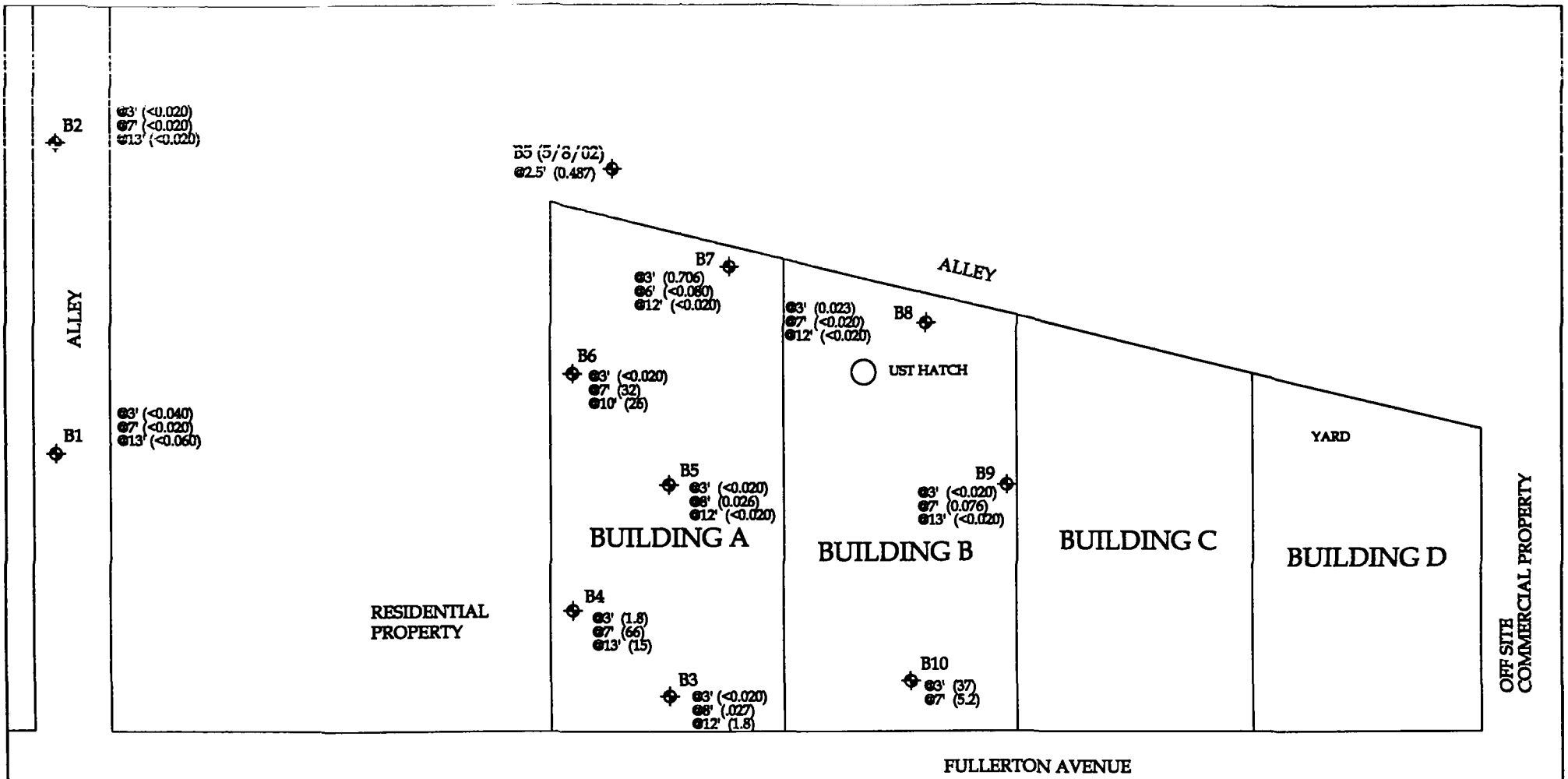
	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location
	B1@3'	B1@7'	B1@13'	B2@3'	B2@7'	B2@13'	B3@3'	B3@8'	B3@12'	B4@3'
Date	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002
Chromium, hexavalent (mg/kg)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	40	140	98
TLCP Chromium (mg/L)	<0.040	<0.020	<0.060	<0.020	<0.020	<0.020	<0.020	0.027	1.8	1.8
TCLP Lead (mg/L)	<0.20	<0.10	<0.30	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location
	B4@7'	B4@13'	B5@3'	B5@8'	B5@12'	B6@3'	B6@7'	B6@10'	B7@3'	B7@6'
Date	6/20/200/	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002
Chromium, hexavalent (mg/kg)	**390**	**390**	<3.0	<3.0	6.8	<3.0	180	**370**	11	9.4
TLCP Chromium (mg/L)	66	15	<0.020	0.026	<0.020	<0.020	32	26	0.706	<0.080
TCLP Lead (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.40
	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location
	B7@12'	B8@3'	B8@7'	B8@12'	B9@3'	B9@7'	B9@13'	B10@3'	B10@7'	B5@2.5'
Date	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	6/20/2002	5/8/2002
Chromium, hexavalent (mg/kg)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	10	**520**	43	**450**
TLCP Chromium (mg/L)	<0.020	0.023	<0.020	<0.020	<0.020	<0.076	<0.020	37	5.2	0.487
TCLP Lead (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.0398
	Sample									
	Location		**IL SOIL TACO VALUES FOR TOTAL CHROMIUM AND CHROMIUM HEX.**							
	B8@3'		**SOIL COMPONENT OF GROUNDWATER INGESTION CLASS I = 0.1mg/L**							
Date	5/8/2002		**SOIL COMPONENT OF GROUNDWATER INGESTION CLASS II = 1.0mg/L**							
Chromium, hexavalent (mg/kg)	<1.2		***EXPOSURE ROUTE SPECIFIC INHALATION = 270 mg/kg (residential)***							
TLCP Chromium (mg/L)	<0.00071		**EXPOSURE ROUTE SPECIFIC INGESTION = 230 mg/kg (residential)**							
TCLP Lead (mg/L)	0.00704									



ALL DATA FROM SAMPLES TAKEN ON 6/20/02
UNLESS NOTED OTHERWISE

SOIL BORING LOCATIONS

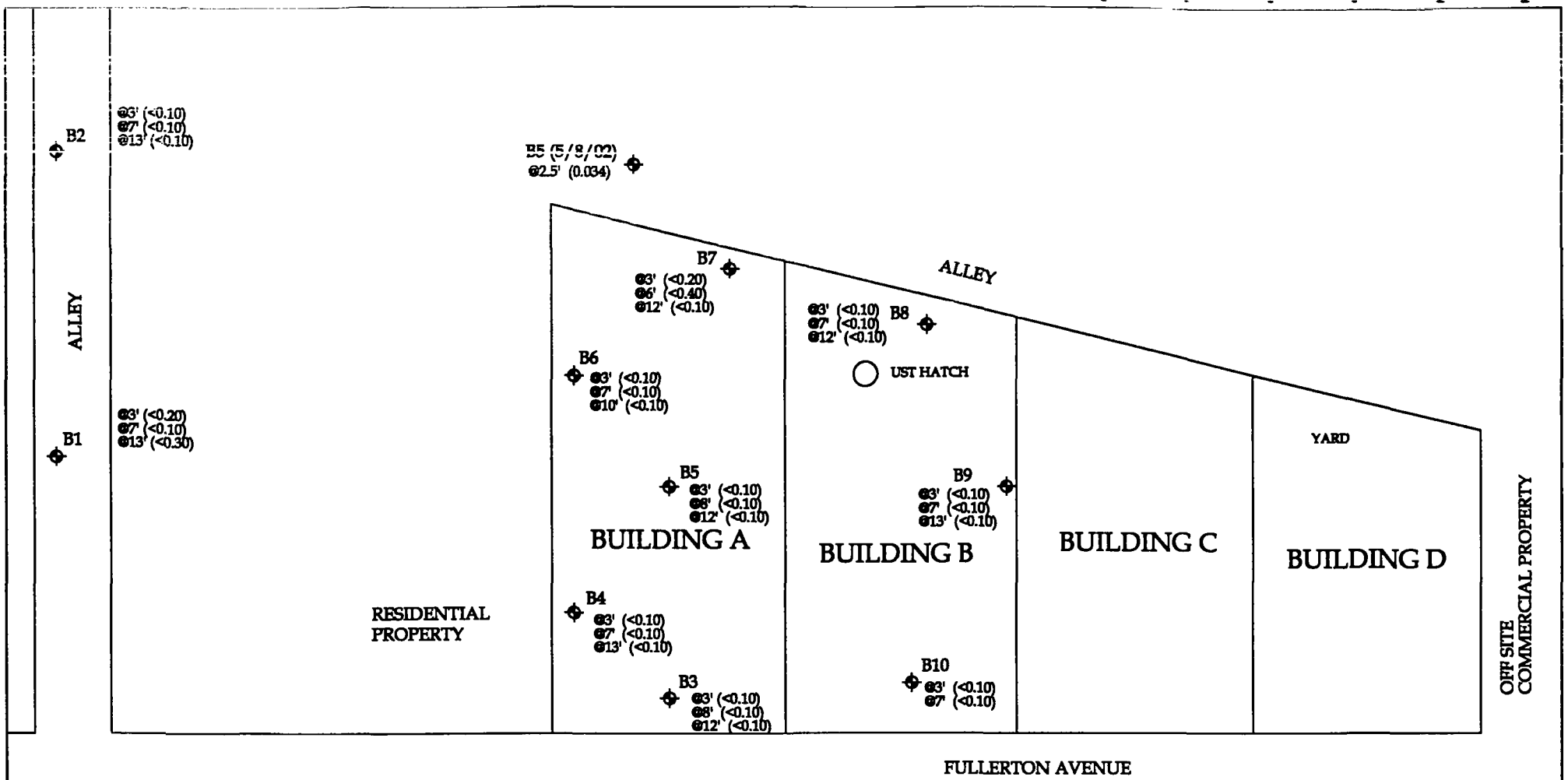
FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 10/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS SOIL ANALYSIS RESULTS - CHROMIUM, hexavalent		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH



SOIL ANALYSIS RESULTS
VALUES FOR TCLP RESULTS ARE mg/l

⊕ SOIL BORING LOCATIONS
W/TOTAL (TCLP) CR RESULTS

FILE NAME: FEF	Seneca Environmental Services		REVISED: 10/16/02
PROJECT NO: 6219801			DATE: 08/12/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS TCLP CHROMIUM TOTAL LEVELS		LUST#: N/A SCALE: 1" = 30'	REVIEWED BY: SK DRAWN BY: RLH



SOIL ANALYSYS RESULTS
VALUES FOR TCLP RESULTS ARE mg/l

SOIL BORING LOCATIONS
W/TOTAL TCLP LEAD RESULTS

FILE NAME: FEF	Seneca Environmental Services		REVISED: 10/16/02
PROJECT NO: 6219801			DATE: 08/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS TCLP LEAD TOTAL LEVELS		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH

APPENDIX D – SOIL BORING LOGS

LUST Incident No.:	Boring Number: B1/TMW1	Page: 1 of 1
		Date: Start 6/20/02 7:30 A.M.
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/02 8:30 A.M.
Address 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content P.L.% 0 20 40 60 L.L.% Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-1') Gravel				
			1	(1-3') Black Gravelly Clay, some staining			0	
			2				0	
	SS		3	(3-4') Brown Gravelly Clay			0	(3-13') Screen
			4	(4-7') Brown Silty Clay			0	
			5				0	
			6				0	
	SS		7	(7-8') Black Silty Clay ▼			0	
			8	(8-11') Gravel			0	
			9				0	
			10				0	
			11	(11-13') Brown silty Clay			0	
			12				0	
	SS		13				0	Boring terminated at 13 feet

Groundwater Data
▼ Depth While Drilling
▽ Depth After Drilling

Auger Depth: 13 feetX1" Rig Type: Geo Probe
Rotary Depth:
Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

IL 532 2275
LPC 501 Rev. Jul-95

LUST Incident No.:	Boring Number: B2/TMW2	Page: 1 of 1
		Date: Start 6/20/02 8:45 A.M.
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/02 9:30 A.M.
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content ● △----------□ P.L.% L.L.% 0 20 40 60 Scale: _____	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-1') Gravel				
			1	(1-3') Black Silty Gravel			0	
			2				0	
	SS		3	(3-5') Brown Silty Gravel			0	(3-13') Screen
			4				0	
			5	(5-9') Black Gravelly Silt			0	
			6				0	
	SS		7		▼		0	
			8				0	
			9	(9-13') Brown Silty Clay			0	
			10				0	
			11				0	
			12				0	
	SS		13				0	Boring terminated at 13 feet

Groundwater Data

▼ Depth While Drilling

▽ Depth After Drilling

Auger Depth: 13 feetX1" Rig Type: Geo Probe

Rotary Depth: _____

Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

IL 532 2275
IPC 501 Rev. Jul-95

LUST Incident No.:	Boring Number: B3/MW3	Page: 1 of 1
		Date: Start 6/20/02 9:30 A.M.
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/02 10:00 A.M.
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content P.L.% 0 20 40 60 L.L.% Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-2') Gravel				
			1				0	
			2	(2-4') Brown Silty Clay			0	
	SS		3				0	(3-13') Screen
			4	(4-6') Black Gavel			0	
			5				0	
			6	(6-10') Brown Silty Clay			0	
	SS		7				0	
			8	▼			0	
			9				0	
			10	(10-13') Btown Silty Clay			0	
			11				0	
			12				0	
	SS		13				0	Boring terminated at 13 feet Well set at 13 feet

Groundwater Data
▼ Depth While Drilling
▽ Depth After Drilling

Auger Depth: 13 feetX1" Rig Type: Geo Probe
Rotary Depth:
Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

IL 532 2275
LPC 501 Rev. Jul-95

LUST Incident No.:	Boring Number: B4/MW4	Page: 1 of 1
		Date: Start 6/20/02 10:00 A.M.
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/02 11:00 A.M.
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content ● △----------□ P.L.% L.L.% 0 20 40 60 Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-1') Gravel				
			1	(1-3') Black Bavelly Sand, trace of Cr on gravel			0	
			2				0	
	SS		3	(3-4') Black Sand			0	(3-13') Screen
			4	(4-6') Gravel			0	
			5				0	
			6	(6-7') Brown Silty Clay			0	
	SS		7	(7-10') Brown Silty Clay			0	
			8	▼			0	
			9				0	
			10	(10-13') Btown Silty Clay			0	
			11				0	
			12				0	
	SS		13				0	Boring terminated at 13 feet Well set at 13 feet

Groundwater Data
▼ Depth While Drilling
▽ Depth After Drilling

Auger Depth: 13 feetX1" Rig Type: Geo Probe
Rotary Depth:
Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

IL 532 2275
LPC 501 Rev. Jul-95

LUST Incident No.:	Boring Number: B5/MW5	Page: 1 of 1
		Date: Start 6/20/02 11:00 A.M.
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/02 11:30 A.M.
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content (P.L.% 0 20 40 60 L.L.%) Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-6') Black Sand/ Gravel Fill				
			1				0	
			2				0	
	SS		3				0	(3-13') Screen
			4				0	
			5				0	
			6	(6-10') Brown Silty Clay			0	
			7				0	
	SS		8	▼			0	
			9				0	
			10	(10-13') Btown Silty Clay, trac of gravel at 10 foot			0	
			11				0	
	SS		12				0	
			13				0	Boring terminated at 13 feet Well set at 13 feet

Groundwater Data	Auger Depth: 13 feetX1"	Rig Type: Geo Probe	Illinois Environmental Protection Agency
▼ Depth While Drilling	Rotary Depth:		
▽ Depth After Drilling	Driller: Rock-Soil	Geologist: Todd Felderman	

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

IL 532 2275
LPC 501 Rev. Jul-95

LUST Incident No.:	Boring Number: B6/MW6	Page: 1 of 1
		Date: Start 6/20/2002 12:00 P.M
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/2002 12:30 P.M
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content P.L.% 0 20 40 60 L.L.% Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-4') Black Sand/ Gravel Fill				
			1				0	
			2				0	
	SS		3				0	(3-11') Screen
			4	(4-7') Black Gravel/ Sand			0	
			5				0	
			6				0	
	SS		7	(7-11') Black Gravel/ Sand			0	
			8	▼			0	
			9				0	
			10				0	
	SS		11				0	Boring terminated at 11 feet
								Well set at 11 feet

Groundwater Data
▼ Depth While Drilling
▽ Depth After Drilling

Auger Depth: 11 feetX1" Rig Type: Geo Probe
Rotary Depth:
Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

LUST Incident No.:	Boring Number: B7/MW7	Page: 1 of 1
		Date: Start 6/20/2002 12:30 P.M
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/2002 1:00 P.M
Address 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content (P.L.% 0 20 40 60 L.L.%) Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-1') Gravel				
			1	(1-2') Bown Clayey Gravel			0	
			2	(2-4') Gravel/ Sand			0	
	SS		3				0	(3-13') Screen
			4	(4-6') Grey Silty Clay			0	
			5				0	
	SS		6	(6-7') Bronw silty Clay ▼			0	
			7	(7-8') Black Gravel			0	
			8	(8-13') Brown Silty Clay			0	
			9				0	
			10				0	
			11				0	
	SS		12				0	
			13				0	Boring terminated at 13 feet Well set at 13 feet

Groundwater Data	Auger Depth: 13 feetX1"	Rig Type: Geo Probe	Illinois Environmental Protection Agency
▼ Depth While Drilling	Rotary Depth:		
▽ Depth After Drilling	Driller: Rock-Soil	Geologist: Todd Felderman	

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

LUST Incident No.	Boring Number: B8/MW8	Page: 1 of 1
		Date: Start 6/20/2002 1:00 P.M
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/2002 1:30 P.M
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content P.L.% 0 20 40 60 L.L.% Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-3') Gravel				
			1				0	
			2				0	
	SS		3	(3-4') Brown Silty Clay			0	(3-12') Screen
			4	(4-5') Grey Lime			0	
			5	(5-8') Black Gravelly Silt			16	
			6	▼			85	
			7				78	
			8	(8-12') Brown Silty Clay			46	
	SS		9				32	
	SS		10				26	
			11				18	
			12				18	Boring terminated at 12 feet Well set at 12 feet

Groundwater Data

▼ Depth While Drilling

▽ Depth After Drilling

Auger Depth: 12 feetX1" Rig Type: Geo Probe

Rotary Depth:

Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

LUST Incident No.:	Boring Number: B9/MW9	Page: 1 of 1
		Date: Start 6/20/02 1:30 P.M
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/02 2:00 P.M
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content ● △----------□ P.L.% L.L.% 0 20 40 60 Scale: _____	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-1') Gravel				
			1	(1-4') Black Gravelly Clay			0	
			2				0	
	SS		3				0	(3-13') Screen
			4	(4-9') Black Gravel			0	
			5				0	
			6	▼			0	
	SS		7				0	
			8				0	
			9	(9-10') Green Silty Clay			21	
			10	(10-13') Brown Silty Clay			8	
			11				0	
			12				0	
	SS		13				0	Boring terminated at 13 feet Well set at 13 feet

Groundwater Data
▼ Depth While Drilling
_____
▽ Depth After Drilling

Auger Depth: 13 feetX1" Rig Type: Geo Probe
Rotary Depth: _____
Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

IL 532 2275
LPC 501 Rev. Jul-95

LUST Incident No.:	Boring Number: B10/MW10	Page: 1 of 1
		Date: Start 6/20/2002 2:00 P.M
Site Name: Former Electro Finishers	Boring Location:	Finish 6/20/2002 2:30 P.M
Address: 1662 West Fullerton, Chicago Illinois		

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content (P.L.% 0 20 40 60 L.L.%) Scale:	Penetrometer (TSF)	OVA/PID/FID	Remarks
			0	Concrete				(0-3') Risor
				(0-4') Gravel Black				
			1				0	
			2				0	
	SS		3				0	(3-7') Screen
			4	(4-7') Black Gravel			0	
			5				0	
			6				0	
	SS		7	▼			0	Probe refused at 7 feet

Groundwater Data

▼ Depth While Drilling

▽ Depth After Drilling

Auger Depth: 7 feetX1" Rig Type: Geo Probe

Rotary Depth:

Driller: Rock-Soil Geologist: Todd Felderman

Illinois Environmental Protection Agency

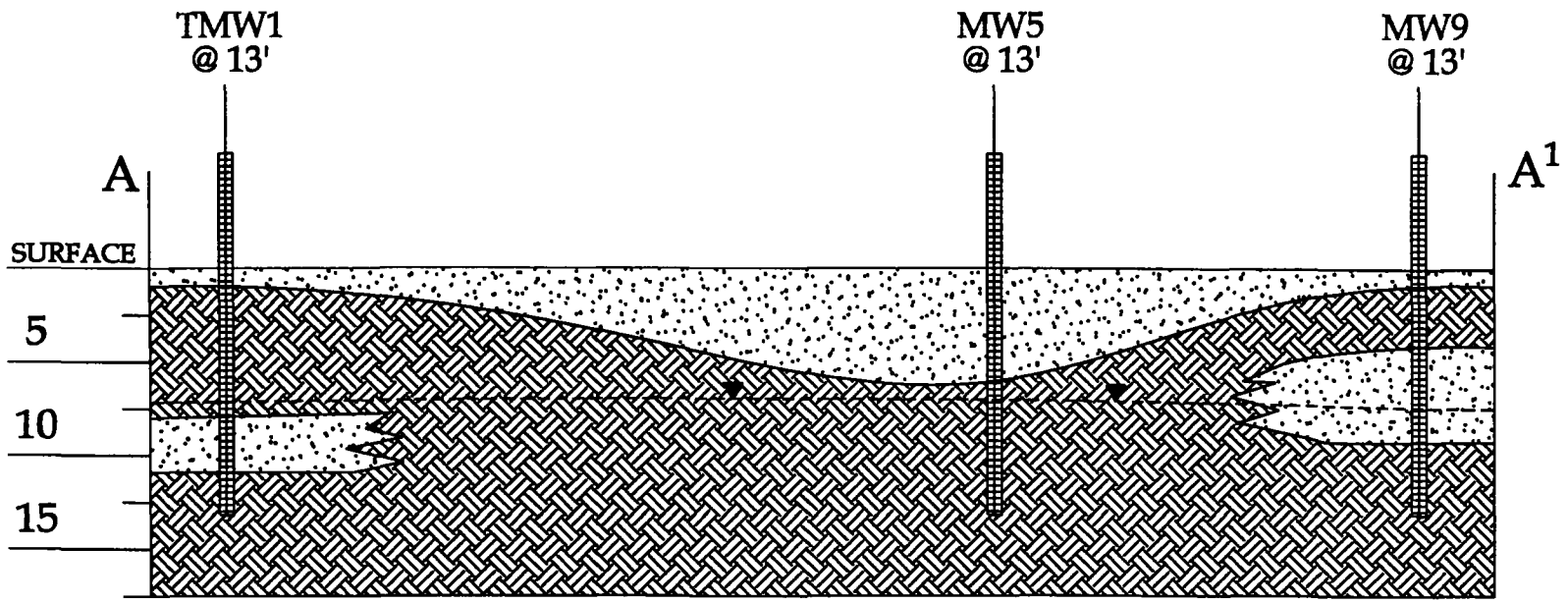
The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day the failure continues, up to $50,000.00 and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

APPENDIX E – HYDROGEOLOGIC DATA

TABLE 2

WELL ELEVATION INFORMATION
FORMER ELECTRO FINISHERS

Well ID	Well Rim Elevation	Screen Length (ft)	Top of Screen Elevation	Bottom of Screen Elevation	DTW	GW Elevation
B1/TMW1						
B2/TMW2						
B3/MW3	590	10	587	577	7.35	582.65
B4/MW4	589.98	10	586.98	576.98	5.92	584.06
B5/MW5	590.01	10	587.01	577.01	5.96	584.05
B6/MW6	590.15	10	587.15	577.15	6.02	584.13
B7/MW7	590.34	10	587.34	577.34	5.67	584.67
B8/MW8	590.79	10	587.79	577.79	5.94	584.85
B9/MW9	590.76	10	587.76	577.76	7.68	583.1
B10/MW10	590.78	10	587.78	577.78	dry	



CLAY

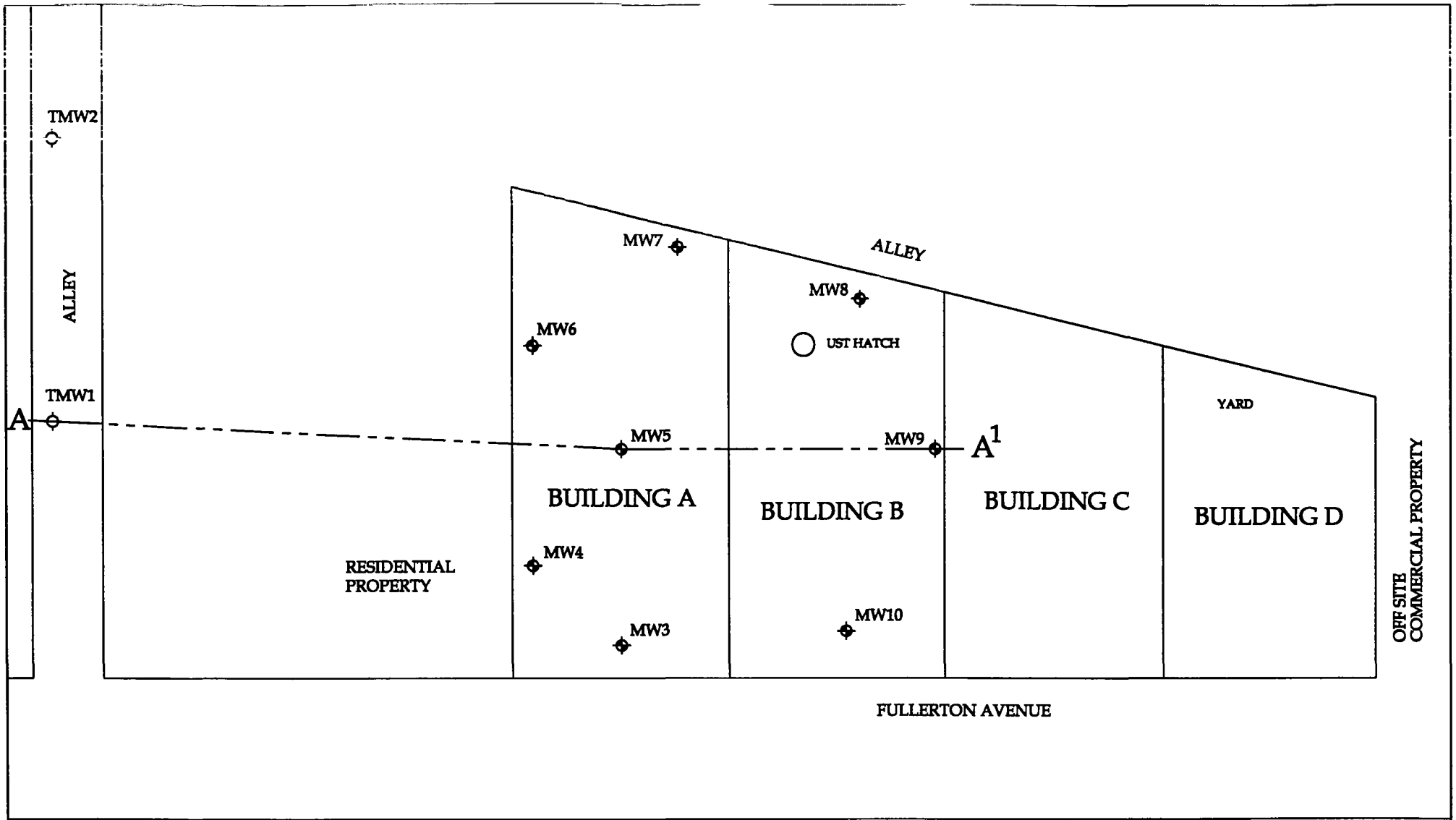
GRAVEL

VERTICAL SCALE: 1" = 10'
HORIZONTAL SCALE: 1" = 30'

FIGURE 3

▼ DEPTH OF GROUNDWATER

FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS GEOLOGIC CROSS SECTION A - A1		LUST#: N/A	REVIEWED BY: SK
		SCALE: AS NOTED	DRAWN BY: RLH

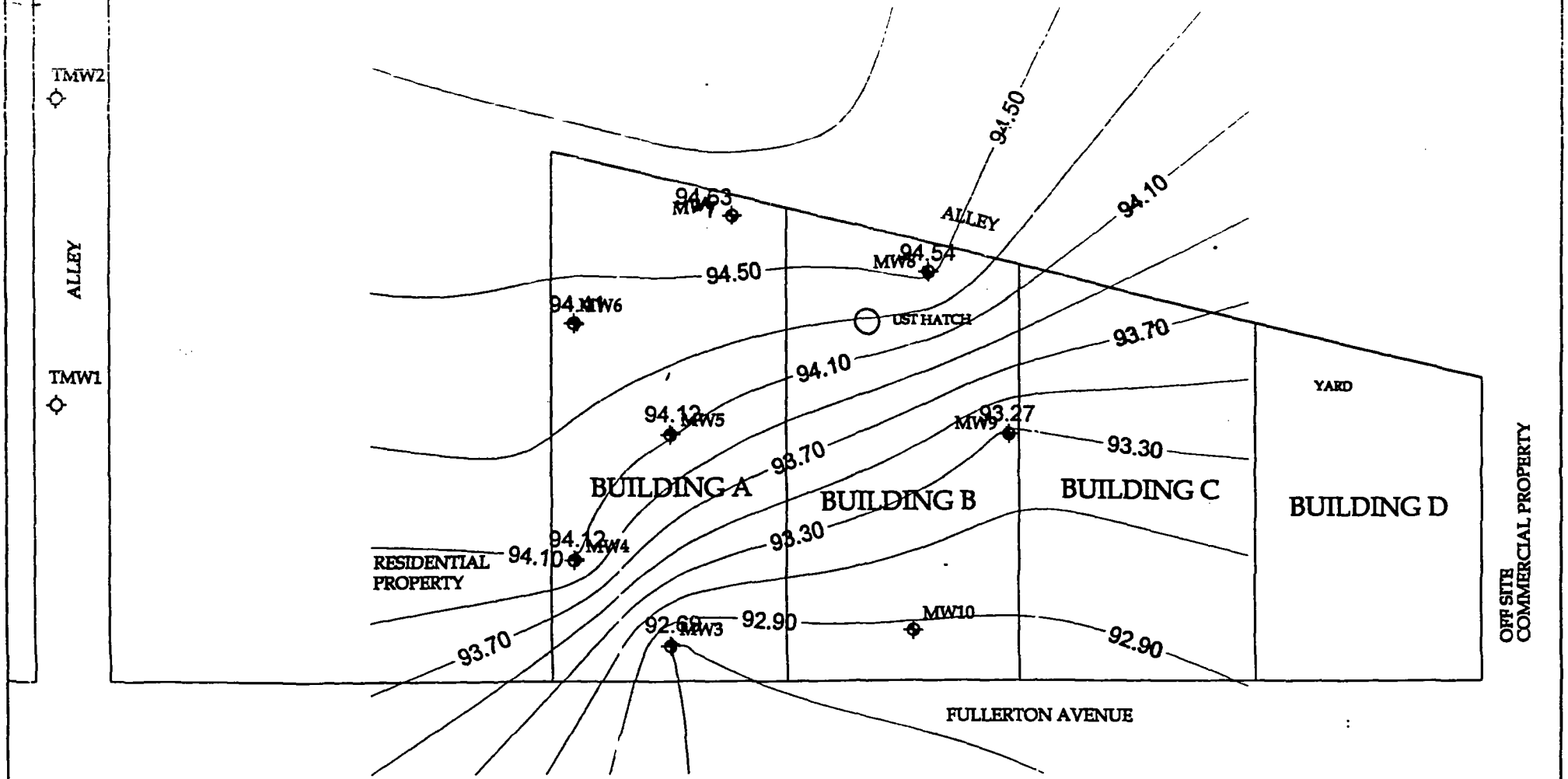


TEMPORARY MONITORING WELL LOCATIONS

PERMANENT MONITORING WELL LOCATIONS

FIGURE 4

FILE NAME: FEF	Seneca Environmental Services		REVISED: 10/16/02
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS LINE OF SECTION		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH



TEMPORARY MONITORING WELL LOCATIONS

PERMANENT MONITORING WELL LOCATIONS

FILE NAME: FEF

PROJECT NO: 6219801

Seneca Environmental Services

SITE: FORMER ELECTRO FINISHERS
321 WEST FULLERTON AVENUE
CHICAGO, ILLINOIS
GROUNDWATER FLOW MAP

LUST#: N/A

SCALE: 1" = 30'

FIGURE 5

REVISED: 08/05/02

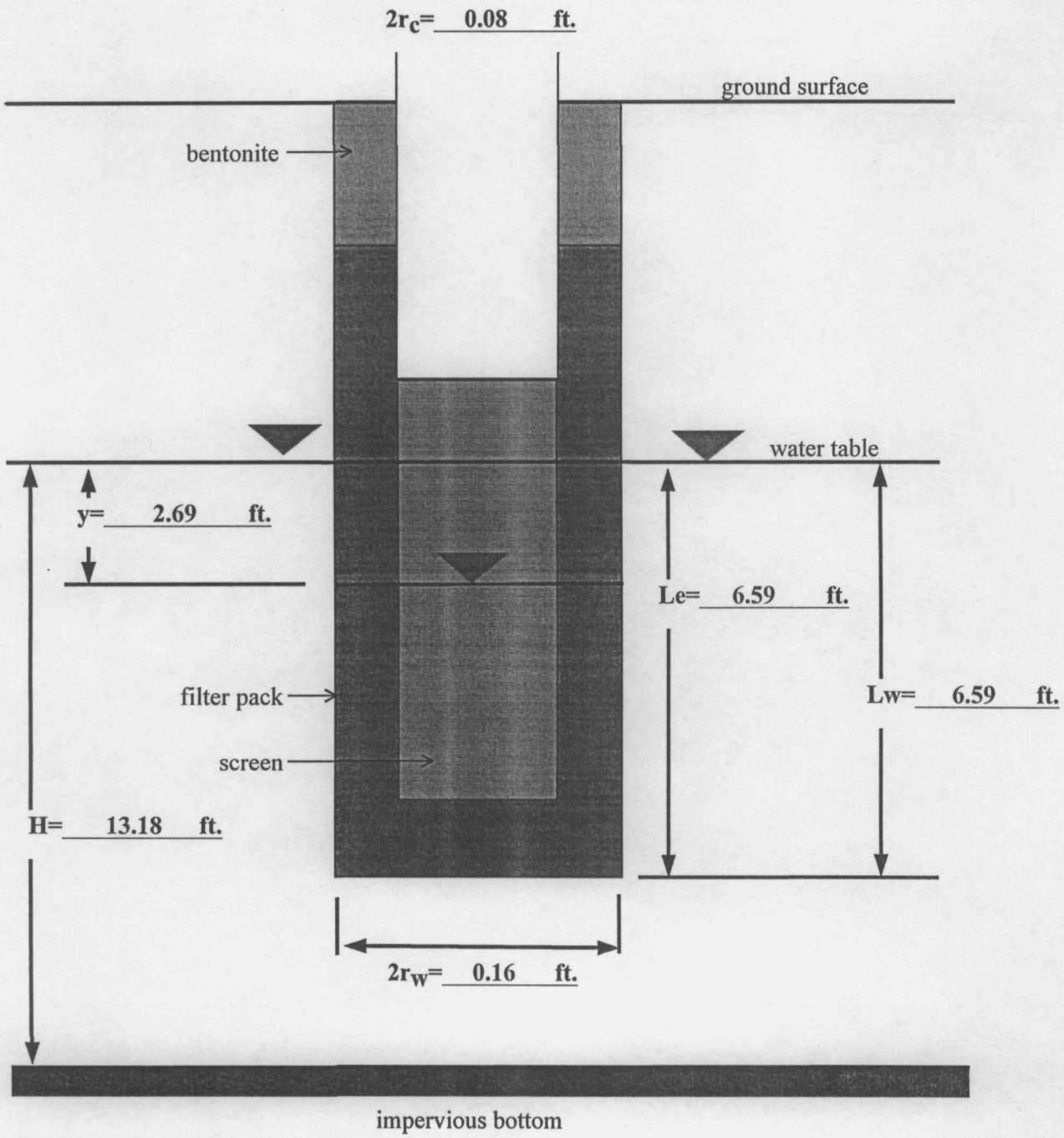
DATE: 02/19/02

REVIEWED BY: SK

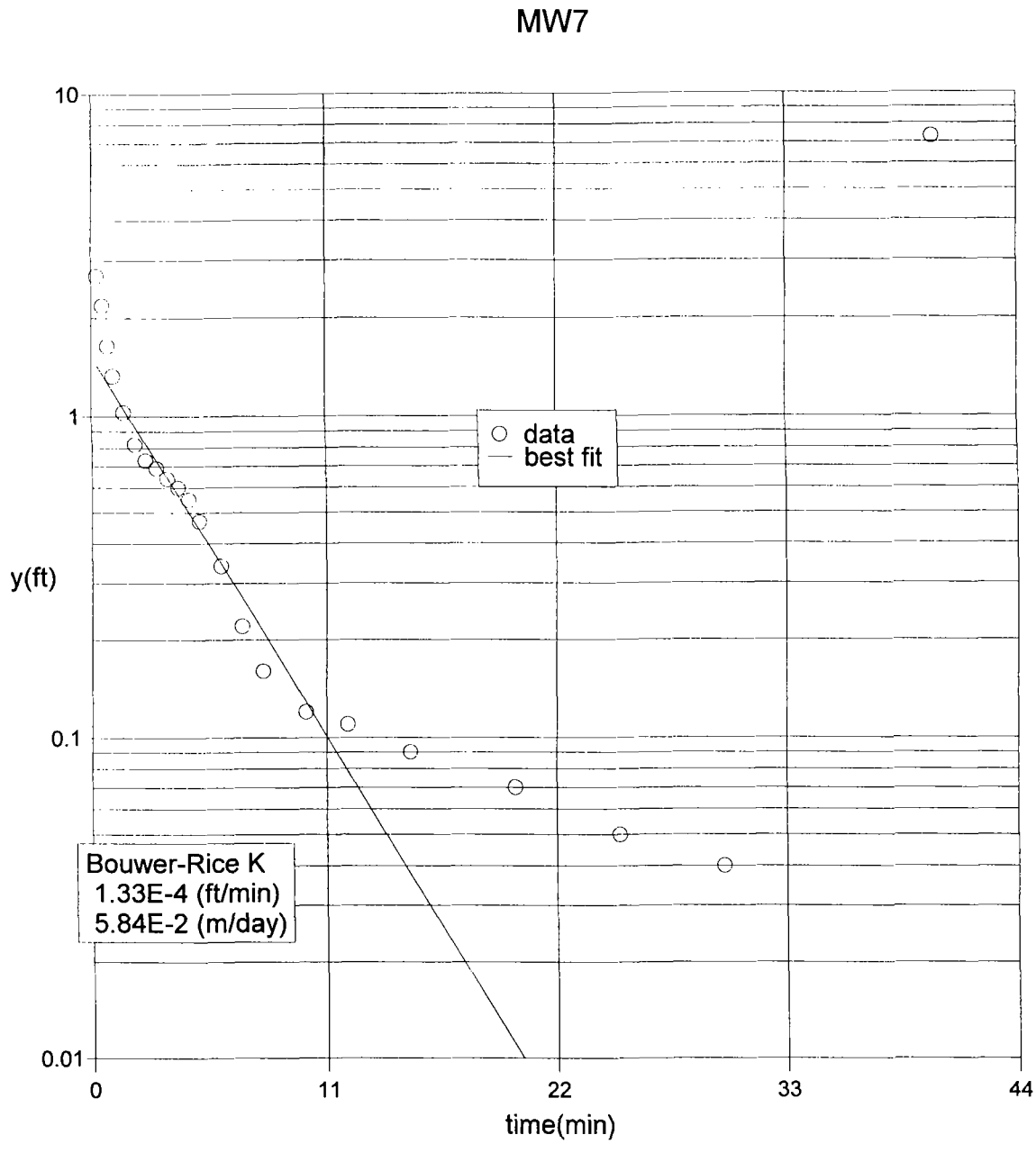
DRAWN BY: RLH

Hydraulic Conductivity Well Diagram

Monitoring Well: MW7
Date Measured: 7/30/02



Revised June 1998


MW7
10
1
0.1
0.01
y(ft)
data
best fit
Bouwer-Rice K
1.33E-4 (ft/min)
5.84E-2 (m/day)
0
11
22
33
44
time(min)

Slug Test Results

Title: 7/30/02
Client: FEF
Job Number: 6219801
Well Number: MW7

Hydraulic Conductivity

Bouwer-Rice: 1.33E-4 (ft/min), 5.84E-2 (m/day)

Well Geometry (ft)
H: 13.18
Le: 6.59
Lw: 6.59
rc: .04
rw: .08

drainable filter pack porosity: 0.15
effective radius: 4.82E-2 (ft)

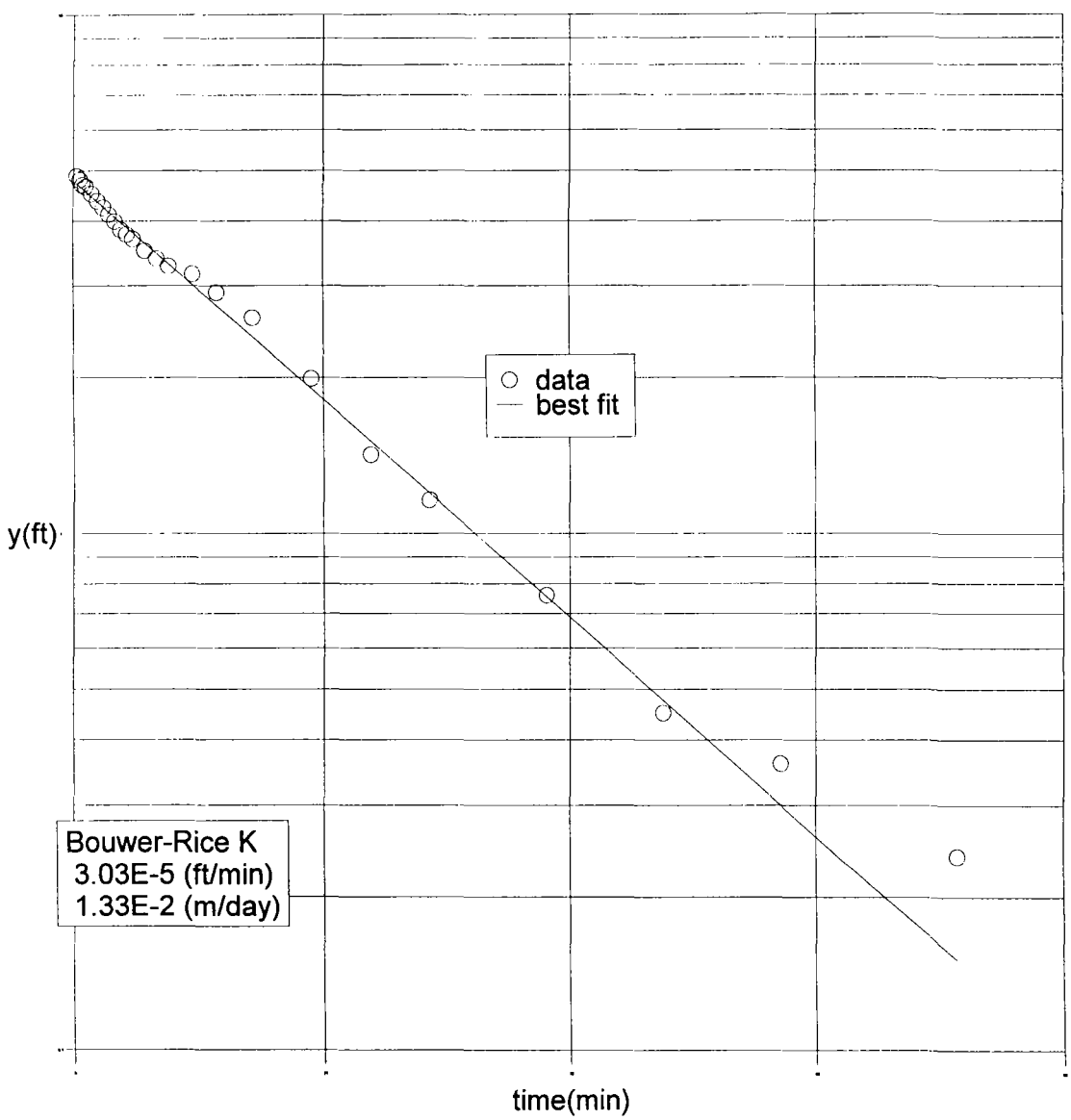
Bouwer Rice Coefficients
Le/rw: 82.375
A: 3.702
B: 0.612
C: 3.646
ln(Re/rw): 3.058

Least Squares Fit
slope: -2.47E-1
intercept: 4.24E-1

Recovery Data and Fit

time(min)	y(ft)	weight	fit(ft)
0.25	2.690	0.0	1.437
0.5	2.180	0.0	1.351
0.75	1.640	1.0	1.270
1.0	1.330	1.0	1.194
1.5	1.030	1.0	1.055
2.0	0.820	1.0	0.932
2.5	0.730	1.0	0.824
3.0	0.690	1.0	0.728
3.5	0.640	1.0	0.643
4.0	0.600	1.0	0.568
4.5	0.550	1.0	0.502
5.0	0.470	1.0	0.444
6.0	0.340	1.0	0.346
7.0	0.220	1.0	0.271
8.0	0.160	1.0	0.211
10.0	0.120	1.0	0.129
12.0	0.110	1.0	0.079
15.0	0.090	0.0	0.037
20.0	0.070	0.0	0.011
25.0	0.050	0.0	0.003
30.0	0.040	0.0	0.001
40.0	7.290	0.0	0.000

MW9


data
best fit
y(ft)
Bouwer-Rice K
3.03E-5 (ft/min)
1.33E-2 (m/day)
time(min)

Slug Test Results

Title: 7/30/02
Client: FEF
Job Number: 6219801
Well Number: MW9

Hydraulic Conductivity

Bouwer-Rice: 3.03E-5 (ft/min), 1.33E-2 (m/day)

Well Geometry (ft)
H: 10.04
Le: 5.02
Lw: 5.02
rc: .04
rw: .08

drainable filter pack porosity: 0.15
effective radius: 4.82E-2 (ft)

Bouwer Rice Coefficients
Le/rw: 62.75
A: 3.238
B: 0.514
C: 3.029
ln(Re/rw): 2.847

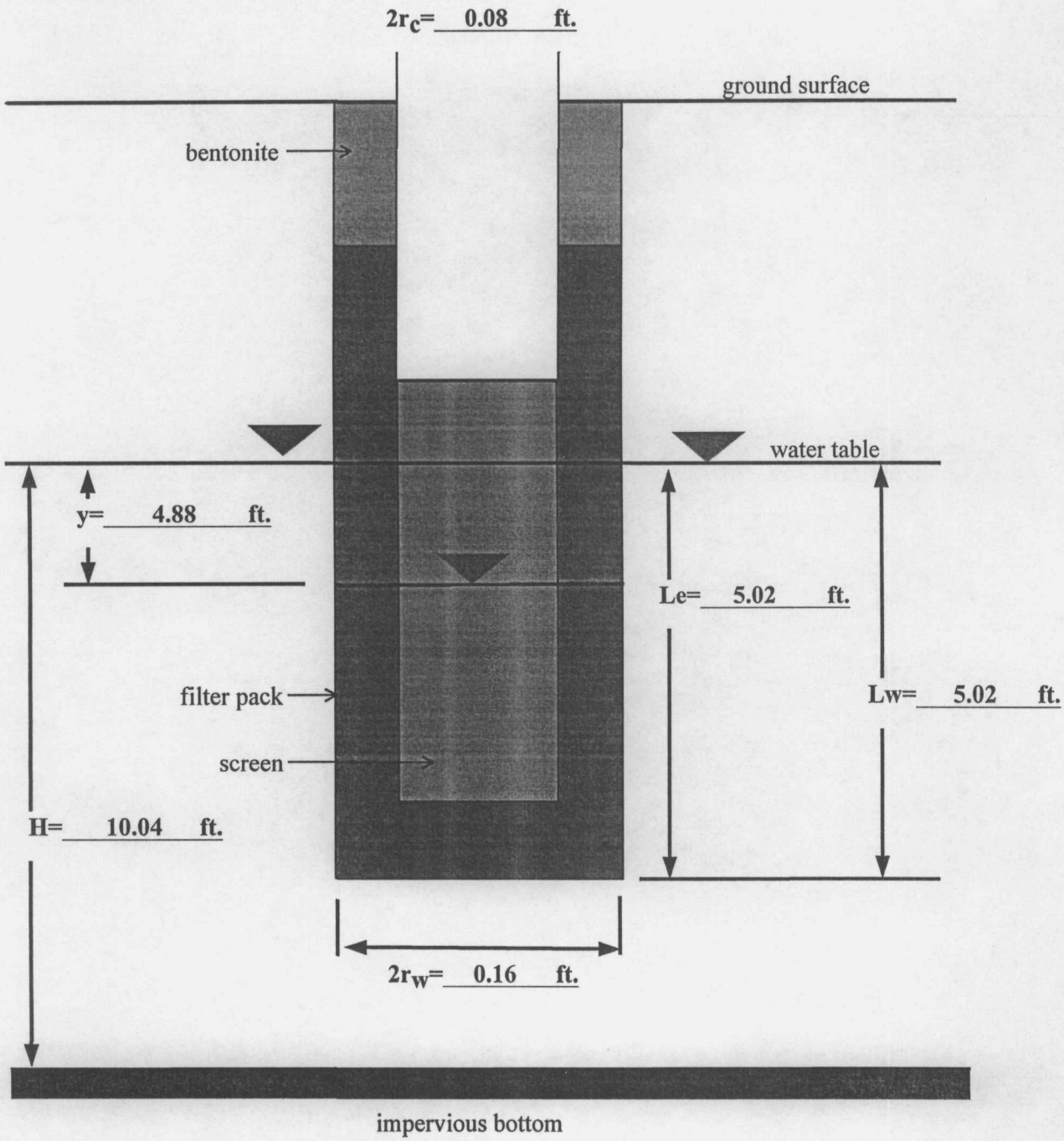
Least Squares Fit
slope: -4.61E-2
intercept: 1.56E+0

Recovery Data and Fit

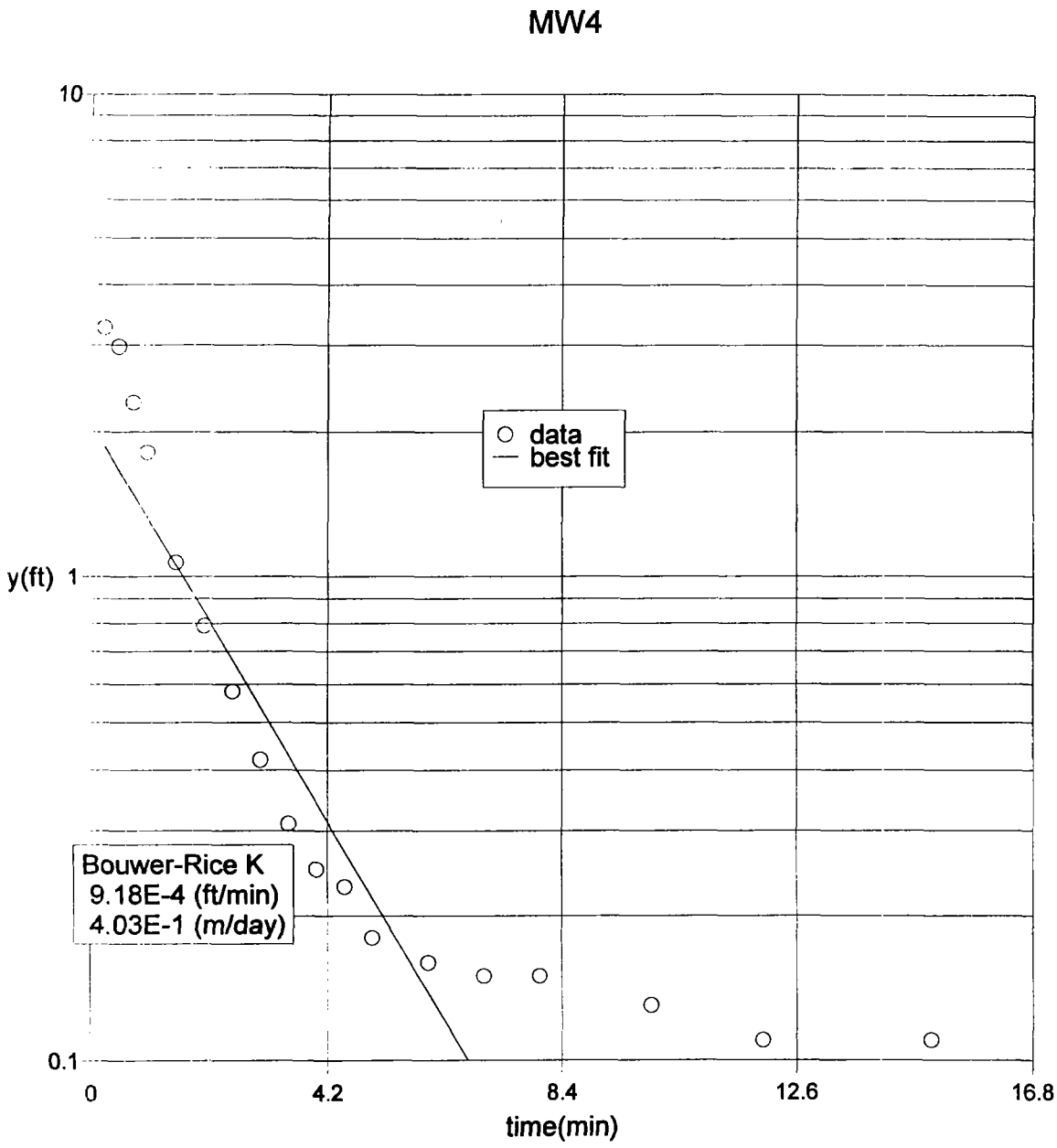
time(min)	y(ft)	weight	fit(ft)
0.25	4.880	0.0	4.722
0.5	4.800	0.0	4.668
0.75	4.690	1.0	4.615
1.0	4.650	1.0	4.562
1.5	4.510	1.0	4.458
2.0	4.370	1.0	4.356
2.5	4.240	1.0	4.257
3.0	4.110	1.0	4.160
3.5	3.990	1.0	4.065
4.0	3.840	1.0	3.972
4.5	3.760	1.0	3.882
5.0	3.690	1.0	3.793
6.0	3.500	1.0	3.622
7.0	3.380	1.0	3.459
8.0	3.270	1.0	3.303
10.0	3.160	1.0	3.012
12.0	2.910	1.0	2.746
15.0	2.600	1.0	2.391
20.0	1.990	1.0	1.899
25.0	1.420	1.0	1.508
30.0	1.160	1.0	1.197
40.0	0.760	0.0	0.755
50.0	0.450	0.0	0.476
60.0	0.360	0.0	0.300
75.0	0.240	0.0	0.150

Hydraulic Conductivity Well Diagram

Monitoring Well: MW9
Date Measured: 7/30/02



Revised June 1998


MW4
10
1
0.1
y(ft)
data
best fit
Bouwer-Rice K
9.18E-4 (ft/min)
4.03E-1 (m/day)
0
4.2
8.4
12.6
16.8
time(min)

Slug Test Results

Title: 6/20/02
Client: Former Electro Finishers
Job Number: 6219801
Well Number: MW4

Hydraulic Conductivity

Bouwer-Rice: 9.18E-4 (ft/min), 4.03E-1 (m/day)

Well Geometry (ft)
H: 11.22
Le: 5.61
Lw: 5.61
rc: .08
rw: .17

drainable filter pack porosity: 0.15
effective radius: 9.89E-2 (ft)

Bouwer Rice Coefficients
Le/rw: 33.0
A: 2.504
B: 0.365
C: 2.094
n(Re/rw): 2.33

Least Squares Fit
slope: -4.52E-1
ntercept: 7.33E-1

Recovery Data and Fit

time(min)	y(ft)	weight	fit(ft)
0.25	3.260	0.0	1.859
0.5	2.980	0.0	1.660
0.75	2.290	1.0	1.483
1.0	1.810	1.0	1.324
1.5	1.070	1.0	1.056
2.0	0.790	1.0	0.842
2.5	0.580	1.0	0.672
3.0	0.420	1.0	0.536
3.5	0.310	1.0	0.428
4.0	0.250	1.0	0.341
4.5	0.230	1.0	0.272
5.0	0.180	1.0	0.217
6.0	0.160	1.0	0.138
7.0	0.150	1.0	0.088
8.0	0.150	0.0	0.056
10.0	0.130	0.0	0.023
12.0	0.110	0.0	0.009
15.0	0.110	0.0	0.002

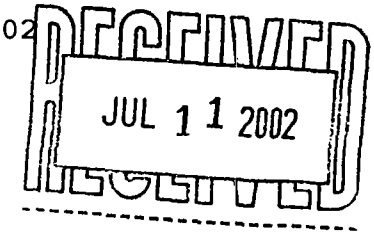
APPENDIX F – GROUNDWATER ANALYSIS RESULTS

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/08/2002



FORMER ELECTRO FINISHERS
CHICAGO, ILLINOIS

Date Received: 06/22/2002
Job Number: 02.07541

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
632054 TMW-1 Project #6219801								
Chromium, Hexavalent	<0.020	mg/L	IP,E,MSO	06/20/2002	06/24/2002	17:30	tlz	SM 3500-Cr D
Chromium, Hex. diss.	<0.020	mg/L	IP,E	06/20/2002	06/24/2002	17:30	tlz	SM 3500-Cr D
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE			06/20/2002	07/06/2002		heh	
Lead, Dissolved (ICP)	<0.10	mg/L		06/20/2002	07/06/2002		heh	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
Lead, ICP	3.4	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
632055 TMW-2 Project #6219801								
Chromium, Hexavalent	<0.020	mg/L	IP,E	06/20/2002	06/24/2002	17:30	tlz	SM 3500-Cr D
Chromium, Hex. diss.	<0.020	mg/L	IP,E,MSO	06/20/2002	06/24/2002	17:30	tlz	SM 3500-Cr D
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE			06/20/2002	07/06/2002		heh	
Lead, Dissolved (ICP)	<0.10	mg/L		06/20/2002	07/06/2002		heh	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
Lead, ICP	1.2	mg/L		06/20/2002	06/28/2002		llw	SW 6010B

Key to Flags:
E - Estimated concentration for this analyte
IP - Improperly preserved sample for this analyte.
MSO - MS and/or MSD are out of control for this analyte

Linda Cmelik, for the
Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/08/2002

FORMER ELECTRO FINISHERS
CHICAGO, ILLINOIS

Date Received: 06/22/2002
Job Number: 02.07541

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
682056 MW-4 Project #6219801								
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE		IE	06/20/2002	06/28/2002		llw	
Lead, Dissolved (ICP)	<0.50	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
Lead, ICP	<0.50	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
682057 MW-6 Project #6219801								
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE		IE	06/20/2002	06/28/2002		llw	
Lead, Dissolved (ICP)	<0.20	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
Lead, ICP	1.8	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
682058 MW-7 Project #6219801								
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE			06/20/2002	07/06/2002		heh	

Key to Flags:
IE - Elevated Reporting Limit due to interelement interference.

Linda Cmelik for mc

Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/08/2002

FORMER ELECTRO FINISHERS
CHICAGO, ILLINOIS

Date Received: 06/22/2002
Job Number: 02.07541

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
682058 MW-7 Project #6219801								
Lead, Dissolved (ICP)	<0.10	mg/L		06/20/2002	07/06/2002		heh	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
Lead, ICP	0.59	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
682059 MW-8 Project #6219801								
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE			06/20/2002	06/28/2002		llw	
Lead, Dissolved (ICP)	<0.10	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
Lead, ICP	<0.10	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
682060 MW-9 Project #6219801								
ICP Metals Prep	D	mg/L		06/20/2002	06/26/2002		tdo	
Dissolved ICP Metals	COMPLETE			06/20/2002	06/28/2002		llw	
Lead, Dissolved (ICP)	<0.10	mg/L		06/20/2002	06/28/2002		llw	SW 6010B
ICP Metals - SW-6010B	Complete	mg/L		06/20/2002	06/28/2002		llw	SW 6010B

Key to Flags:

Linda Cmelik for KMC.

Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

07/08/2002

FORMER ELECTRO FINISHERS
CHICAGO, ILLINOIS

Date Received: 06/22/2002
Job Number: 02.07541

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
682060 MW-9 Project #6219801								
Lead, ICP	2.4	mg/L		06/20/2002	06/28/2002		llw	SW 6010B

Key to Flags:

Linda Cornelius for me

Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

TestAmerica Job Number: 02.07541

ATTACHMENTS

Following are the sample receipt log and the chain of custody applicable to this analytical report.

For questions regarding this report, please contact the individual who signed the analytical report.

Sample Receipt and Temperature Log Form

Client: Seneca Project: _____

City: _____

Date: 6/22/02 Receiver's Initials JP Time (if Applicable): _____

Temperature Record

Cooler #1: 3 ° C / On Ice ☒ Temp. Blank

Cooler #2: 4 ° C / On Ice ☒ Temp. Blank

Cooler #3: _____ ° C / On Ice ☐ Temp. Blank

Cooler #4: _____ ° C / On Ice ☐ Temp. Blank

Thermometer:

☐ IR-905085 ☐ CF07-03-T1

☒ IR-809065 ☐ CF07-03-T2

Couriers

☐ Airborne	☐ Speedy
☐ UPS	☐ TA Courier
☒ Velocity	☐ TA Field Svs
☐ FedEx	☐ Client
☐ DHL	
☐ US Postal	☐ Other

☐ Samples Not Received in a Cooler

☐ Temperature Not Taken

☐ Samples Received Within 6 hrs of sampling

COC Completed Correctly? ☐ Yes ☐ No
(Cite inconsistencies below)

Custody Seals Intact? ☐ Yes ☐ No
(If Applicable)

Cooler Checklist (Check indicates conformance failure)

	Received Broken		Improper Container		Temperature*
	Improperly Preserved		Missing Sample		Extra Sample
	Missing Label		Sample Past Hold Date		Improper Label
	Insufficient Sample Volume		Other:		

Client Sample IDs:

Initial/Date: mf 6/24/02

Remarks/Action Taken:

Rec'd Scott K., does need Cr⁶. Send HNO₃ bottles only. Will run Samples for Hex Chrome.

Log-In By:

NR MF EM

OT _____

Refer to SOP CF01-01 for Temperature Criteria

TestAmerica INCORPORATED

Bartlett Division
850 West Bartlett Road
Bartlett, IL 60103

Phone: 630-289-3100
Fax: 630-289-5445

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring ____

Client Name: Seneca Environmental - Bettendorf Client #: ____
Address: 17851 244th Avenue
City/State/Zip Code: Bettendorf Iowa 52722
Project Manager: Scott Killip
Telephone Number: (563) 332-8000 Fax: (563) 332-9465
Sampler Name: (Print Name) Justin Smith
Sampler Signature: Justin Smith

Project Name: Former Electco Finishers
Project #: 6219801
Site/Location ID: Chicago State: Illinois
Report To: Scott Killip
Invoice To: SES
Quote #: 02.0192 PO#: 157931

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: ____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: Dissolved Pb and Cr+6	Total Pb and Cr+6	QC Deliverables / REMARKS
TMW1	6-20-02	8°°A	G	Y	GW	X1							X		
TMW1	6.20.02	8°°A	G	N	GW	1								X	
TMW2	6-20-02	9°°A	G	Y	GW	1							X		
TMW2	6-20-02	9°°A	G	N	GW	1								X	
MW4	6-20-02	3⁴⁰p	G	Y	GW	1							X		
MW4	6.20.02	3⁴⁰p	G	N	GW	1								X	
MW 6	6-20-02	4°°p	G	Y	GW	1							X		
MW 6	6.20.02	4°°p	G	N	GW	1								X	
MW 7	6-20-02	4¹⁰p	G	Y	GW	1							X		
MW 7	6.20.02	4¹⁰p	G	N	GW	1								X	

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: ____

Special Instructions: Per conversation with Scott Killip on 6-24-02- Go ahead and analyze crt6 +diss crt6 on TMW 1+2- KC

Relinquished By: Justin Smith	Date: 6/21/02	Time: 300p	Received By: Dan Gates	Date: 6/21/02	Time: 1230
Relinquished By: Dan Gates	Date: 6/21/02	Time: 1500	Received By: Melissa Sherman	Date: 6/22/02	Time: 810
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: Y N
Method of Shipment:

TestAmerica INCORPORATED
Bartlett Division
850 West Bartlett Road
Bartlett, IL 60103
Phone: 630-289-3100
Fax: 630-289-5445

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring

Client Name: Seneca Environmental - Bettendorf Client #:
Address: 17851 244th Avenue
City/State/Zip Code: Bettendorf, Iowa 52722
Project Manager: Scott Killip
Telephone Number: (563) 332-8000 Fax: (563) 332-9465
Sampler Name: (Print Name) Justin Smith
Sampler Signature: Justin Smith

Project Name: Former Electro-Finishers
Project #: 6219801
Site/Location ID: Chicago State: Illinois
Report To: Scott Killip
Invoice To: SES
Quote #: 02.0192 PO#: 157931

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: ___
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: Dissolved Pb and Cr+6	Total Pb and Cr+6	QC Deliverables	REMARKS
MW 8	6-20-02	4:15p	6	Y	GW	1							X		None	
MW 8	6-20-02	4:15p	6	N	GW	1								X	Level 2 (Batch QC)	
MW 9	6-20-02	4:39p	6	Y	GW	1							X		Level 3	
MW 9	6-20-02	4:39p	6	N	GW	1								X	Level 4	
															Other: ___	

Special Instructions: 4 bottles

Relinquished By: Justin Smith	Date: 6/21/02	Time: 3:00	Received By:	Date: 6/21/02	Time: 1230	
Relinquished By:	Date: 6/21/02	Time: 1500	Received By:	Date: 6/22/02	Time: 800	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

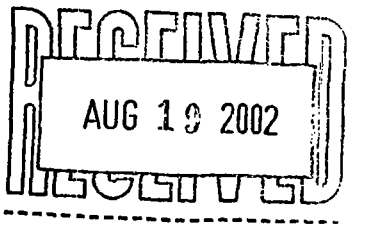
LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: Y N
Method of Shipment:

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17351 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

08/13/2002



FORMER ELECTRO FINISHERS PROJECT #6219801
CHICAGO, ILLINOIS

Date Received: 07/31/2002
Job Number: 02.09359

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
688897 TMW1 Project #6219801								
Chromium, hexavalent	<0.020	mg/L	RH	07/30/2002	07/31/2002	12:10	kmv	SM 3500-Cr D
ICP Metals Prep	D	mg/L	pH>2	07/30/2002	08/01/2002		mrm	
ICP Metals - SW-6010B	Complete			07/30/2002	08/02/2002		heh	SW 6010B
Chromium, ICP	0.831	mg/L		07/30/2002	08/02/2002		heh	SW 6010B
688898 TMW2 Project #6219801								
Chromium, hexavalent	<0.020	mg/L	RH	07/30/2002	07/31/2002	12:10	kmv	SM 3500-Cr D
ICP Metals Prep	D	mg/L	pH>2	07/30/2002	08/01/2002		mrm	
ICP Metals - SW-6010B	Complete			07/30/2002	08/02/2002		heh	SW 6010B
Chromium, ICP	2.8	mg/L		07/30/2002	08/02/2002		heh	SW 6010B
688899 MW4 Project #6219801								
Chromium, hexavalent	860	mg/L		07/30/2002	07/31/2002	12:10	kmv	SM 3500-Cr D

Key to Flags:
RH - Received at lab past the holding time for this analyte
pH>2 - Sample received at pH>2. Adjusted correctly prior to analysis.

Linda Crabtree-Crane
Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

08/13/2002

FORMER ELECTRO FINISHERS PROJECT #6219801
CHICAGO, ILLINOIS

Date Received: 07/31/2002
Job Number: 02.09359

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
638900 MW6 Project #6219801								
Chromium, hexavalent	340	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
638901 MW7 Project #6219801								
Chromium, hexavalent	0.031	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
638902 MW8 Project #6219801								
Chromium, hexavalent	<0.020	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
638903 MW9 Project #6219801								
Chromium, hexavalent	<0.020	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
638904 MW3 Project #6219801								
Chromium, hexavalent	80	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
Chromium, hex. diss.	77	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D

Key to Flags:

Linda Charlier-Frank
Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Scott Killip
SENECA ENVIRONMENTAL SERV.
17851 244th Avenue
P.O. Box 1208
Bettendorf, IA 52722

08/13/2002

FORMER ELECTRO FINISHERS PROJECT #6219801
CHICAGO, ILLINOIS

Date Received: 07/31/2002
Job Number: 02.09359

	Result	Units	Flags	Date Taken	Date Analyzed	Time Analyzed	Analyst	Analysis Method
638304 MW3 Project #6219801								
ICP Metals Prep	D	mg/L		07/30/2002	08/01/2002		mrm	
Dissolved ICP Metals	COMPLETE			07/30/2002	08/02/2002		heh	
Lead, Dissolved (ICP)	<0.10	mg/L		07/30/2002	08/02/2002		heh	SW 6010B
ICP Metals - SW-6010B	Complete			07/30/2002	08/02/2002		heh	SW 6010B
Lead, ICP	<0.10	mg/L		07/30/2002	08/02/2002		heh	SW 6010B
638305 MW5 Project #6219801								
Chromium, hexavalent	<0.020	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
Chromium, hex. diss.	<0.020	mg/L		07/30/2002	07/31/2002	12:20	kmv	SM 3500-Cr D
ICP Metals Prep	D	mg/L	pH>2	07/30/2002	08/01/2002		mrm	
Dissolved ICP Metals	COMPLETE			07/30/2002	08/02/2002		heh	
Lead, Dissolved (ICP)	<0.10	mg/L		07/30/2002	08/02/2002		heh	SW 6010B
ICP Metals - SW-6010B	Complete			07/30/2002	08/02/2002		heh	SW 6010B
Lead, ICP	<0.10	mg/L		07/30/2002	08/02/2002		heh	SW 6010B

Key to Flags:
pH>2 - Sample received at pH>2. Adjusted correctly prior to analysis.

Linda Cmelik for me
Kristin M. Clay
Operations Manager
Iowa Lab Certification - 7

TestAmerica Job Number: 02.09359

ATTACHMENTS

Following are the sample receipt log and the chain of custody applicable to this analytical report.

For questions regarding this report, please contact the individual who signed the analytical report.

704 Enterprise Drive / Cedar Falls, Iowa 50613 / 319-277-2401 / Fax: 319-277-2425 / 800-750-2401

Sample Receipt and Temperature Log Form

Client: Seneca Project: 6219801

City: Bettendorf

Date: 7-31-02 Receiver's Initials CH Time (if Applicable): _____

Temperature Record

Cooler #1 6.0 ° C / On Ice ☒ Temp. Blank

Cooler #2: _____ ° C / On Ice ☐ Temp. Blank

Cooler #3: _____ ° C / On Ice ☐ Temp. Blank

Cooler #4: _____ ° C / On Ice ☐ Temp. Blank

Couriers

☐ Airborne	☐ Speedy
☐ UPS	☐ TA Courier
☐ Velocity	☐ TA Field Svs
☒ FedEx	☐ Client
☐ DHL	
☐ US Postal	☐ Other

Thermometer:

☐ IR-905085 ☐ CF07-03-T1

☒ IR-809065 ☐ CF07-03-T2

☐ Samples Not Received in a Cooler

☐ Temperature Not Taken

☐ Samples Received Within 6 hrs of sampling

COC Completed Correctly? ☐ Yes ☐ No
(Cite inconsistencies below)

Custody Seals Intact? ☐ Yes ☐ No
(If Applicable)

Cooler Checklist (Check indicates conformance failure)

	Received Broken		Improper Container		Temperature*
	Improperly Preserved		Missing Sample		Extra Sample
	Missing Label		Sample Past Hold Date		Improper Label
	Insufficient Sample Volume		Other:		

Client Sample IDs:

Initial/Date:

Remarks/Action Taken:

Log-In By:

NF MF EM

OT _____

*Refer to SOP CF01-01 for Temperature Criteria

TestAmerica INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319-277-2401
Fax: 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring ____

Client Name: Seneca Client #: ____

Address: 17551 244th Ave

City/State/Zip Code: Bettendorf IA 52722

Project Manager: Scott Kilip

Telephone Number: 563 332-8000 Fax: ____

Sampler Name: (Print Name) Todd Felkerman

Sampler Signature: Todd Felk

Project Name: Former Electro Finishers

Project #: 6219801

Site/Location ID: Chicago State: Illinois

Report To: Scott Kilip

Invoice To: ____

Quote #: ____ PO#: Call Amy

TAT
___ Standard
X Rush (surcharges may apply)
24 hr
Date Needed: 7/31/02

Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: Cr+6	Total - Dissolved Pb	Total - Dissolved Pb	QC Deliverables: None / Level 2 (Batch QC) / Level 3 / Level 4 / Other: ____ REMARKS
TMW1	7/30	11:10A	G		GW						1		X			
TMW2	7/30	11:30A	G		GW						1		X			
MW3	7/30	12:00P	G		GW	1					1		X	X		
MW4	7/30	12:15P	G		GW						1		X			
MW5	7/30	12:30P	G		GW	1					1		X	X		
MW6	7/30	12:45P	G		GW						1		X			
MW7	7/30	1:00P	G		GW						1		X			
MW8	7/30	1:15P	G		GW						1		X			
MW9	7/30	1:30P	G		GW						1		X			

Special Instructions:
Analyze preserved for total Lead, 7-31-02 - Per Scott Kilip - As TMW1 + TMW2 were received past hold time also analyze diss. Chrome on ICP to verify.

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: Y N
Method of Shipment:

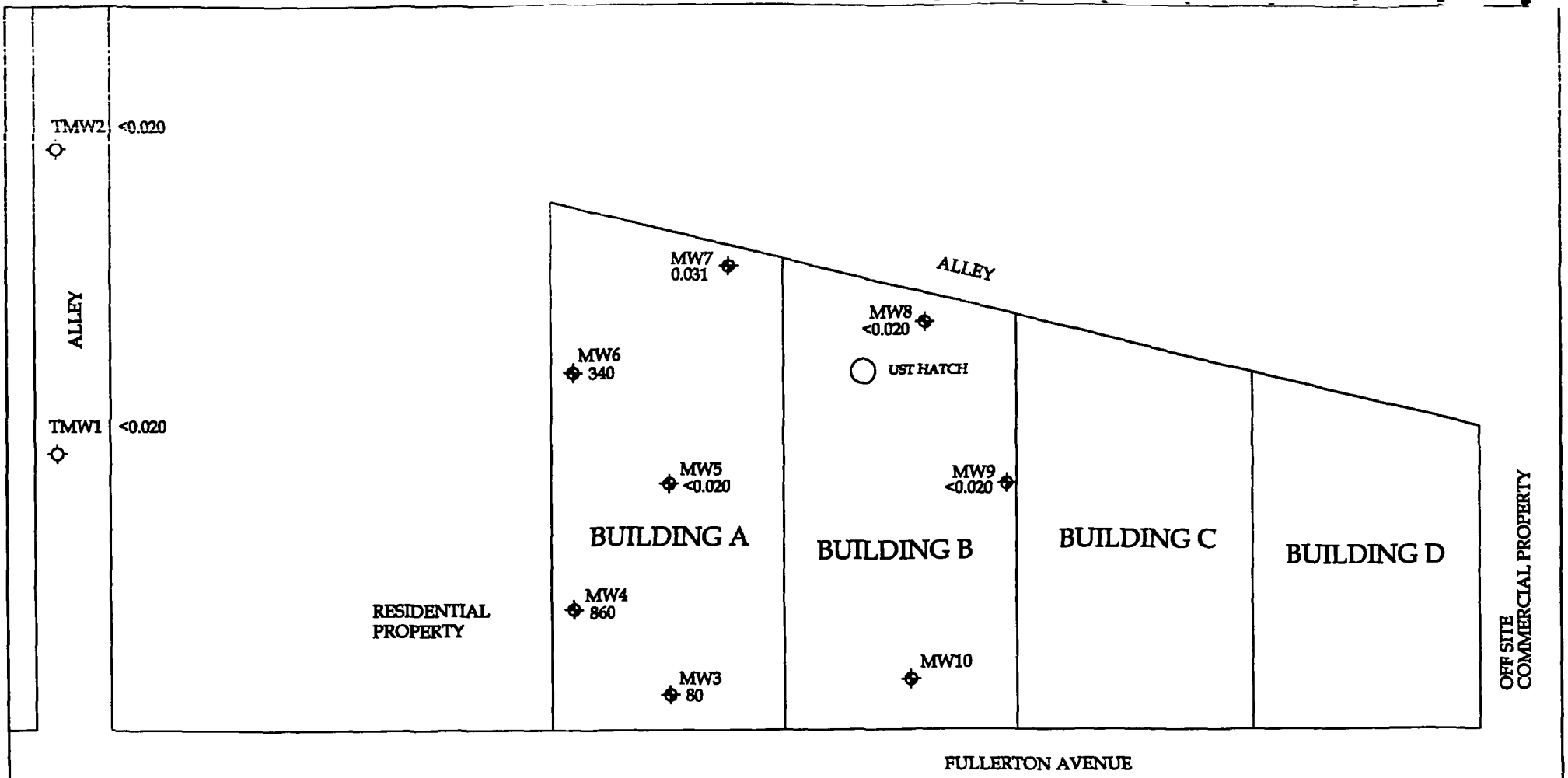
	Date:	Time:		Date:	Time:
Relinquished By: Todd Felk	7/30	2:00 pm	Received By: Edna Mueller	7/31/02	11:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

7/31/02 Per Todd. Do regular Cr+6 on all samples. Do diss Cr+6 on MW3 and MW5
Do total + dissolved Pb on MW3 and MW5 ICP method is OK

APPENDIX G – TABULATED GROUNDWATER RESULTS AND MAPS

TABLE 3
GROUNDWATER ANALYSIS RESULTS
FORMER ELECTRO FINISHERS

	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location
	TMW1	TMW1	TMW2	TMW2	MW3	MW3	MW4	MW4	MW5	MW5
Date Sampled	6/20/2002	7/31/2002	6/20/2002	7/31/2002	6/20/2002	7/31/2002	6/20/2002	7/31/2002	6/20/2002	7/31/2002
Chromium, hexavalent-Total	<0.020	<0.020	<0.020	<0.020		80		860		<0.020
Chromium (ICP)-Total		0.831		2.8						
Chromium, hex.-Dissolved	<0.020		<0.020			77				<0.020
Lead (ICP)-Total	3.4		1.2			<0.10	<0.50			<0.10
Lead, (ICP)-Dissolved	<0.10		<0.10			<0.10	<0.50			<0.10
	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location	Sample Location		
	MW6	MW6	MW7	MW7	MW8	MW8	MW9	MW9		
Date Sampled	6/20/2002	7/31/2002	6/20/2002	7/31/2002	6/20/2002	7/31/2002	6/20/2002	7/31/2002		
Chromium, hexavalent-Total		340		0.031		<0.020		<0.020		
Chromium (ICP)-Total										
Chromium, hex.-Dissolved										
Lead (ICP)-Total	1.8		0.59		<0.10		2.4			
Lead, (ICP)-Dissolved	<0.20		<0.10		<0.10		<0.10			
ALL VALUES ARE IN mg/L (ppm)										

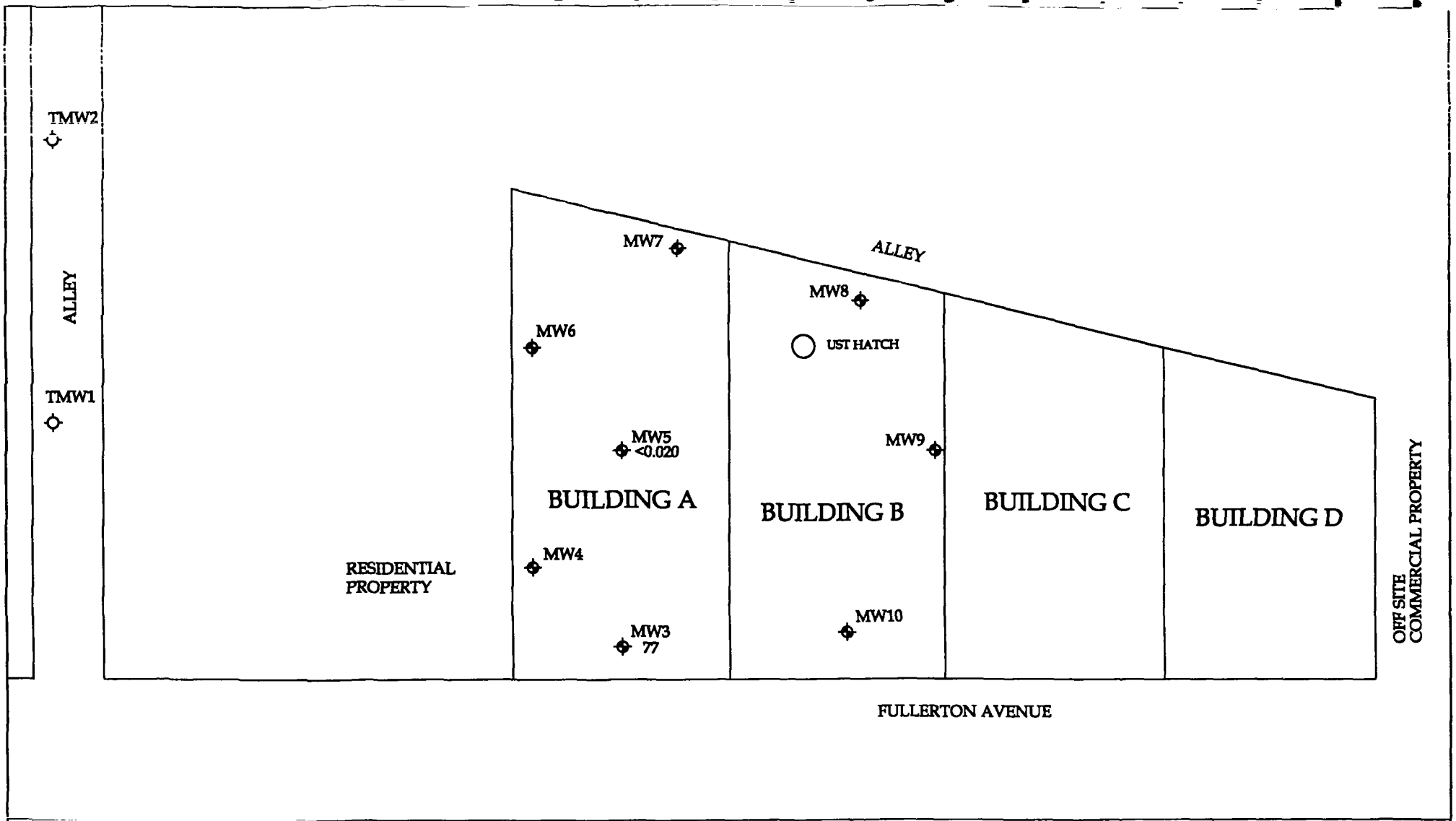


ALL DATA: mg/L

TEMPORARY MONITORING WELL LOCATIONS

PERMANENT MONITORING WELL LOCATIONS

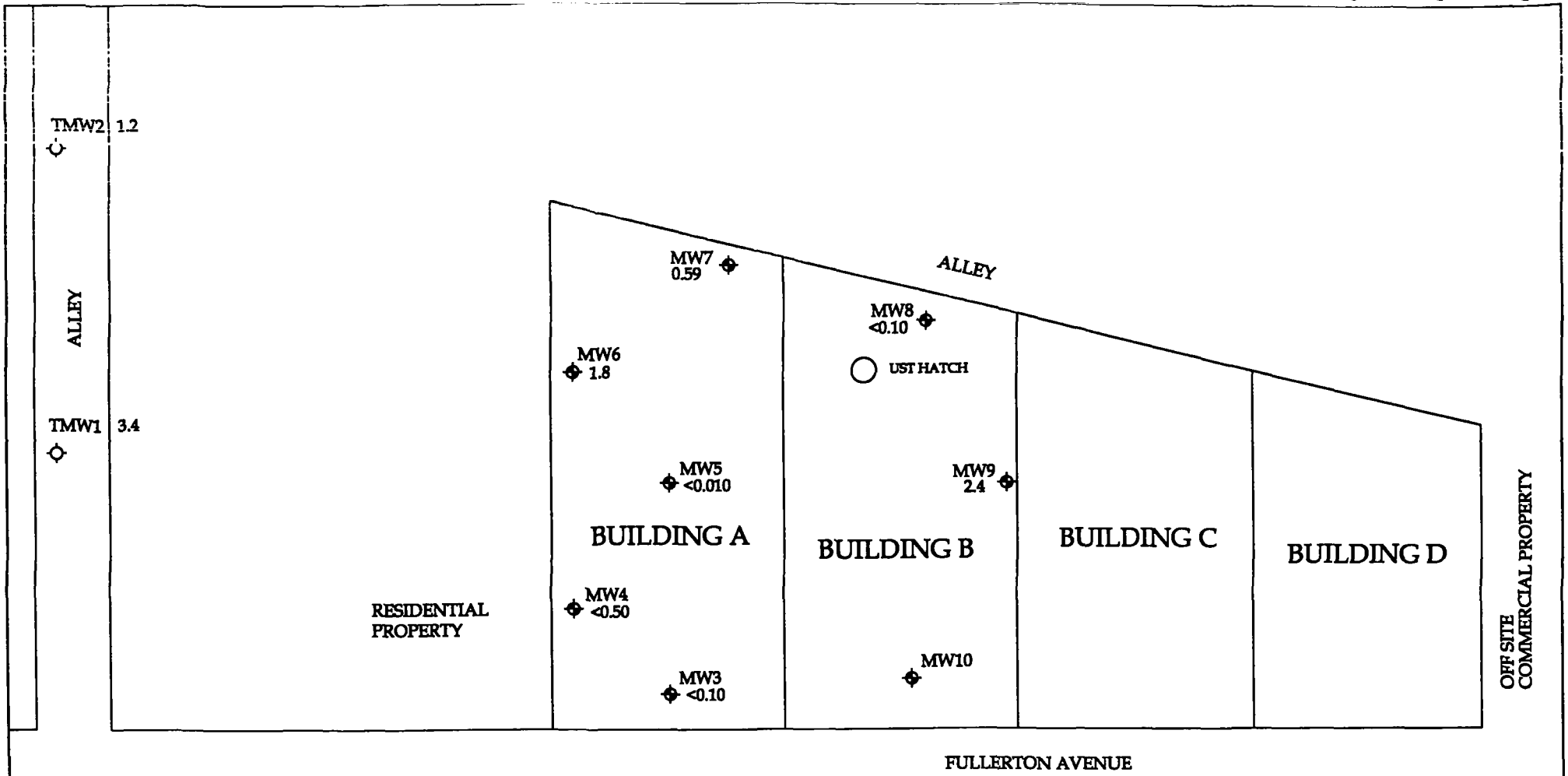
FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS CHROMIUM, hexavalent - TOTAL		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH



ALL DATA: mg/L

- TEMPORARY MONITORING WELL LOCATIONS
- PERMANENT MONITORING WELL LOCATIONS

FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS CHROMIUM, hexavalent - DISSOLVED		LUST#: N/A SCALE: 1" = 30'	REVIEWED BY: SK DRAWN BY: RLH

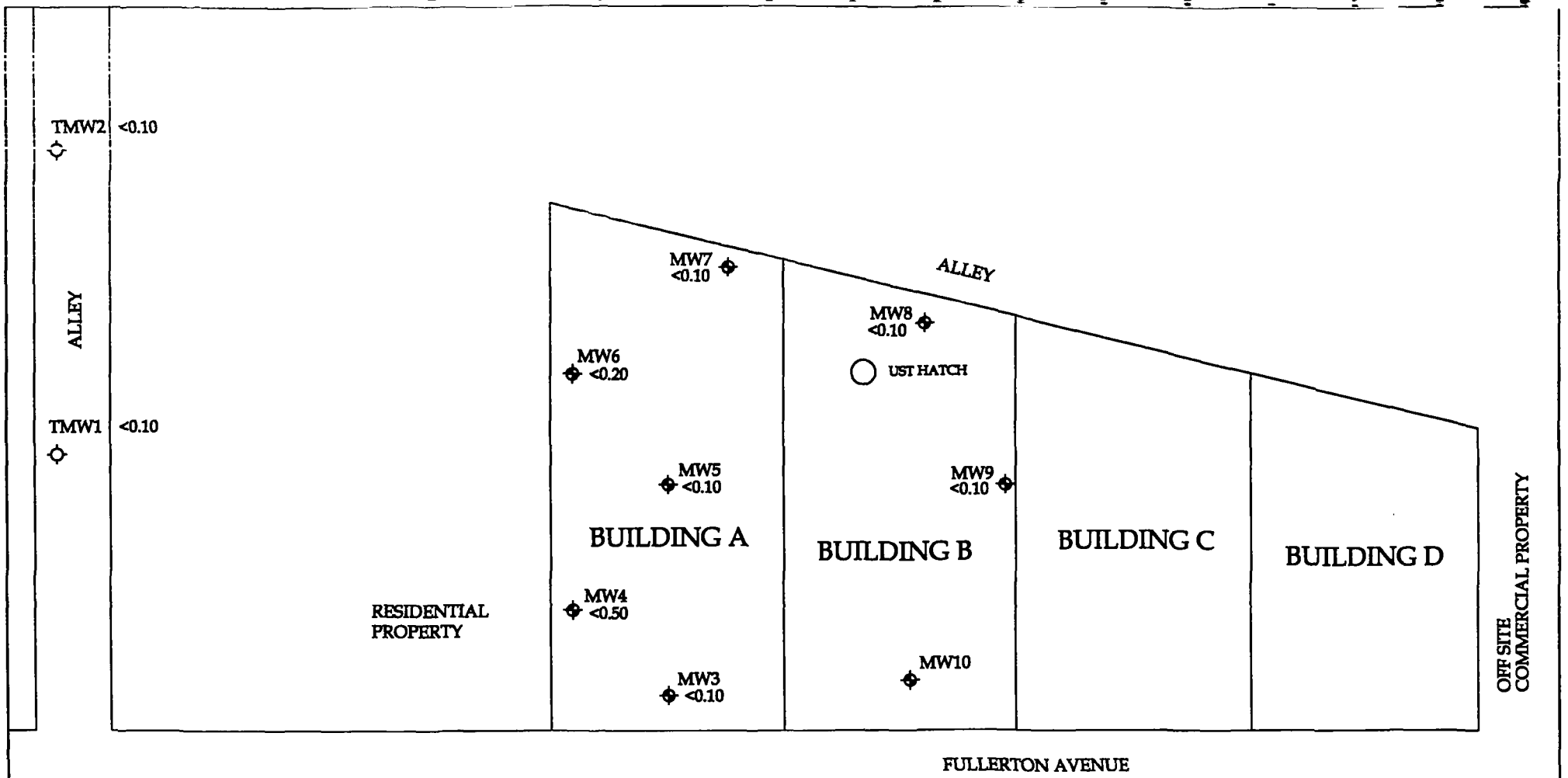


GROUNDWATER ANALYSIS RESULTS

ALL DATA: mg/L

- TEMPORARY MONITORING WELL LOCATIONS
- PERMANENT MONITORING WELL LOCATIONS

FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS LEAD (ICP) - TOTAL		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH

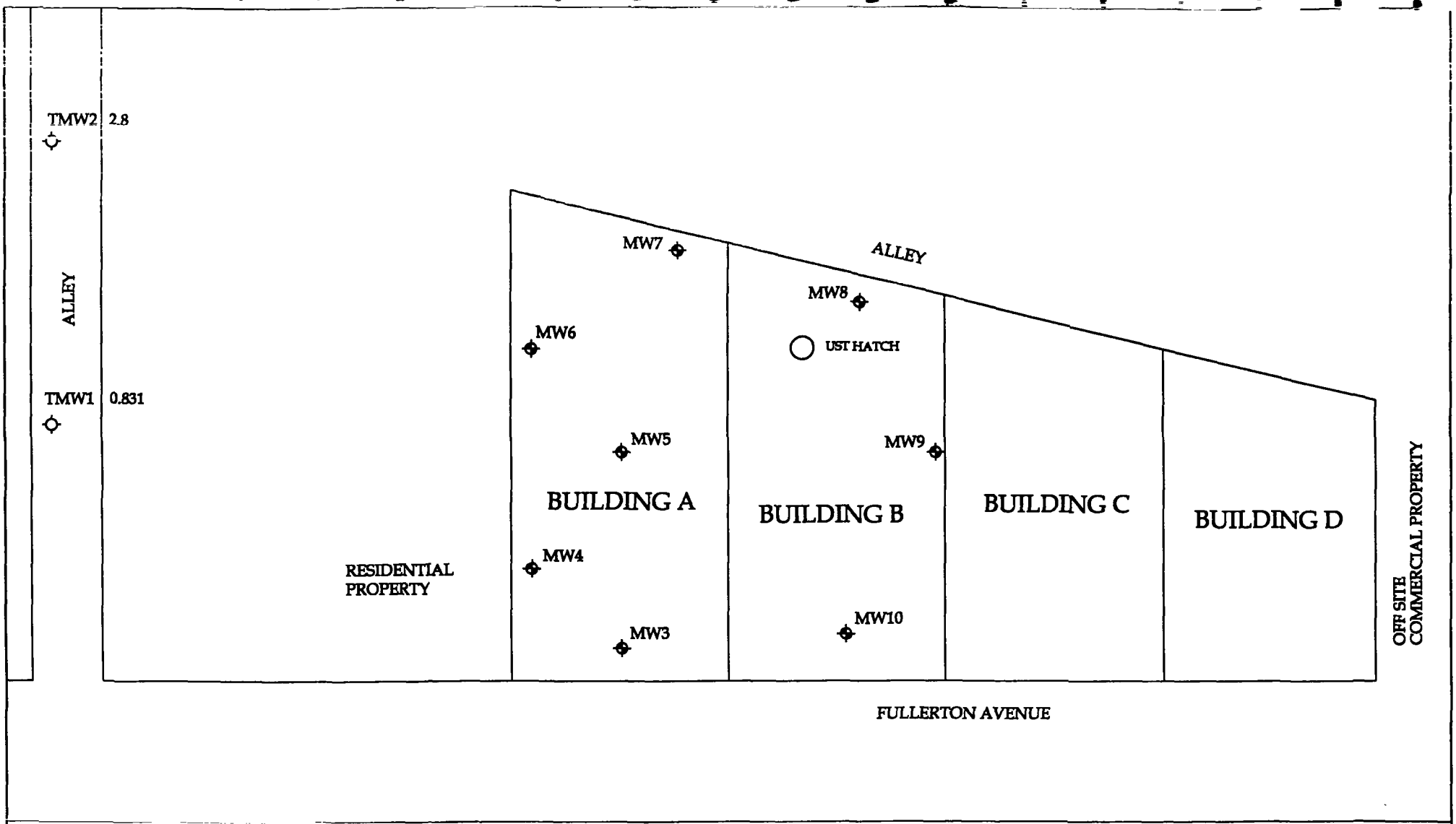


ALL DATA: mg/L

TEMPORARY MONITORING WELL LOCATIONS

PERMANENT MONITORING WELL LOCATIONS

FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS LEAD (ICP) - DISSOLVED		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH



ALL DATA: mg/L

TEMPORARY MONITORING WELL LOCATIONS

PERMANENT MONITORING WELL LOCATIONS

FILE NAME: FEF	Seneca Environmental Services		REVISED:
PROJECT NO: 6219801			DATE: 09/16/02
SITE: FORMER ELECTRO FINISHERS 321 WEST FULLERTON AVENUE CHICAGO, ILLINOIS CHROMIUM (ICP) - TOTAL		LUST#: N/A	REVIEWED BY: SK
		SCALE: 1" = 30'	DRAWN BY: RLH

APPENDIX H – ASBESTOS INSPECTION REPORT

Asbestos Building Inspection Report

Site: **1662 W Fullerton**
Chicago, Illinois

Northern Environmental Development, Inc.
1520 South Wabash, Chicago, Illinois 60605

Asbestos Building Inspection Report

1662 W Fullerton

This inspection report and the recommendations contained within have been prepared by Illinois Department of Public Health licensed asbestos building inspector, Michael Casey ID# 100-6299. The building survey and sample collection were performed on 2/23/01. Report preparation was completed on 3/5/01.

Michael Casey
IDPH # 100-6299

Signature

Date 3/5/01

3/5/01
Date

APPENDICES

N.E.D
Northern Environmental Development, Inc.
1520 South Wabash, Chicago, Illinois 60605 *Phone: (312) 341-9900 *Fax: (312) 341 – 9902

I. SUMMARY

Northern Environmental Development was retained by Mario Kazmarek to perform an Asbestos Building Inspection at 1652 W Fullerton, Chicago, Illinois. Illinois Department of Public Health licensed asbestos building inspector, Michael Casey license # 100-6299, performed the inspection on February 23, 2001. The sample results are contained in Appendix A of this report. The samples were analyzed by Polarized Light Microscopy (PLM) at Stat Analysis Corporation, a NVLAP accredited laboratory located in Chicago. Suspect asbestos-containing materials that were sampled included floor tiles, floor tile adhesives, ceiling tiles, and thermal pipe insulation. Please note that additional asbestos containing materials may exist in inaccessible areas such as above ceilings and inside the walls. In the event that additional suspect materials are encountered during renovation or demolition activities, cease work and contact an IDPH licensed inspector. If you have any questions regarding these sample results or recommendations, please feel free to contact us at (312) 341-9900

1.1 Inspector Recommendations

A total of seven homogeneous materials were identified, quantified and sampled. The following materials were found to contain greater than 1% asbestos by PLM analysis. Homogeneous area A (AirCell Pipe Insulation) contains 10-15% chrysotile asbestos. Homogeneous areas B & BM (12" Gray Floor Tile and Mastic) contain chrysotile1-3% (Tile) and 5-10% (mastic). These materials should be removed by an Illinois Department of Public Health licensed Asbestos Abatement Contractor prior to demolition.

APPENDIX A

Homogeneous Area Summary Sheet

Laboratory PLM Analytical Results

Material Locations

APPENDIX A

HOMOGENEOUS MATERIAL SUMMARY SHEET

Sampling Area	Material Description / Location	Square Ft / Linear Ft.	Sample #'s	Asbestos
A)	**Air Cell TSI** **Throughout Building**	**200 lf**	**1-2-3** **10-15% Chrysotile**	**YES**
B)	**12" Gray Floor Tile** **Storage behind Office**	**350sf**	**4-5-6** **1-5% Chrysotile**	**YES**
BM)	**Black Mastic w/ 12" Gray FT**		**BM 4-5-6** **5-10% Chrysotile**	**YES**
C)	1'x1' Ceiling Tile Office area	450sf	7-8-9	NO
CG)	Glue associated w/ 1'x1' CT		CG 7-8-9	NO
D)	12" White floor Tile office washroom and entrance	100sf	10-11-12	NO
DM)	Mastic under 12" White FT		DM 10-11-12	NO

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATanalysis.com

NVLAP & AIHA Environmental Lead Proficiency Analytical Testing ACCREDITED LABORATORY

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA-600/M4-82-020

Northern Environmental Development
1520 S. Wabash
Chicago, IL 60605
Phone: (312) 341-9900
Fax: (312) 341-9902

Client Reference:
Location: 1662 W. Fullerton Chicago IL
STAT Batch No.: 216982
STAT Client No.: 251

Date Received: 02/26/2001
Date Analyzed: 02/28/2001
Date Reported: 02/28/2001
Turn Around Time: 48 Hour

Laboratory Sample	Client Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
216982001	A-01	Chrysotile 10-15%	Binder 85-90%
216982002	A-02	NA	
216982003	A-03	NA	
216982004	B-04	Chrysotile 1-3%	Binder 95-99%
216982005	B-05	NA	
216982006	B-06	NA	
216982007	Bm-4	Chrysotile 5-10%	Binder 90-95%
216982008	Bm-5	NA	
216982009	Bm-6	NA	
216982010	C-07	ND	Cellulose 99-100%
216982011	C-08	ND	Cellulose 99-100%
216982012	C-09	ND	Cellulose 99-100%
216982013	CG-7	ND	Binder 99-100%
216982014	CG-8	ND	Binder 99-100%
216982015	CG-9	ND	Binder 99-100%
216982016	D-10	ND	Binder 99-100%
216982017	D-11	ND	Binder 99-100%

ND = Asbestos Not Detected.

Analyzed by Name :
Title :

Date: 02/28/2001

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATanalysis.com

NVLAP & AIHA ACCREDITED LABORATORY

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA-600/M4-82-020

Northern Environmental Development
1520 S. Wabash
Chicago, IL 60605
Phone: (312) 341-9900
Fax: (312) 341-9902

Client Reference:
Location: 1662 W. Fullerton Chicago IL
STAT Batch No.: 216982
STAT Client No.: 251

Date Received: 02/26/2001
Date Analyzed: 02/28/2001
Date Reported: 02/28/2001
Turn Around Time: 48 Hour

Laboratory Sample	Client Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
216982018	D-12	ND	Binder 99-100%
216982019	Dm-10	ND	Cellulose 1-5% Binder 95-99%
216982020	Dm-11	ND	Cellulose 1-5% Binder 95-99%
216982021	Dm-12	ND	Cellulose 1-5% Binder 95-99%

ND = Asbestos Not Detected.
The results of this report relate only to the samples tested. This report shall not be reproduced unless written approval has been obtained from the laboratory.

Analyzed by Name :
Title :

Date: 02/28/2001

N.E.D INC.
Northern Environmental Development, inc.
1520 S. Wabash Avenue Chicago, Illinois 60605 * Phone (312) 341-9900 * Fax (312) 341-9902

2/26/01 1:35 PM

CHAIN OF CUSTODY

(21) 216982

Sample #	Material Description	Location	Quantity	Concentration
A-01	Aircell TSI		CHRY 10-15	BST-EJ
A-02	Aircell TSF		NH	
A-03	Aircell TSF		NA	
B-04	12" Gray FT		CHI-3	BST-ET
B-05	12" Gray FT		NH	
B-06	12" Gray FT		NA	
Bm-4	Black Mastic w/12" Gray		CH 5-10	BE-ET
Bm-5	Black Mastic w/12" Gray		NH	
Bm-6	Black Mastic w/12"		NA	

Relinquished By: [signature] Date 2/23/01 Received By: MG Date: 2/26 2:05

Analysis Requested: PLM Turn Around Time: 48hr

Subject Site: 1662 W. Fullerton Chicago, IL.

#please analyze until positive

N.E.D INC.
Northern Environmental Development, Inc.
1520 S Wabash Avenue Chicago, Illinois 60605 * Phone (312) 341-9900 * Fax (312) 341-9902

CHAIN OF CUSTODY

216982

Sample #	Material Description	Location	Quantity	Concentration
C-07	1'x1' Ceily Tile		ALL EA-LW	
C-08	1'x1' Ceily Tile		"	
C-09	1'x1' Ceily Tile		"	
CG-7	Glue w/ 1'x1' CT		BEA-W	
CG-8	Glue w/ 1'x1' CT		"	
CG-9	Glue w/ 1'x1' CT			
D-10	12" White Marble Flow Tile		BEA-W	
D-11	12" White Marble FT		"	
D-12	12" White Marble FT		"	

Relinquished By:_____ Date_____ Received By:_____ Date:_____

Analysis Requested:_____ Turn Around Time:_____

Subject Site: 1662 W. FULLERTON
CHICAGO, IL.

N.E.D INC.
Northern Environmental Development, Inc.
1520 S. Wabash Avenue Chicago, Illinois 60605 * Phone (312) 341-9900 * Fax (312) 341-9902

CHAIN OF CUSTODY

21082

Sample #	Material Description	Location	Quantity	Concentration
Dm-10	Mastic w/ 12" white Marble FT		BT-ET, cell 1-5	
Dm-11	Mastic w/ 12" white Marble FT			
Dm-12	Mastic w/ 12" white Marble FT			

Relinquished By: _____ **Date** _____ **Received By:** _____ **Date:** _____

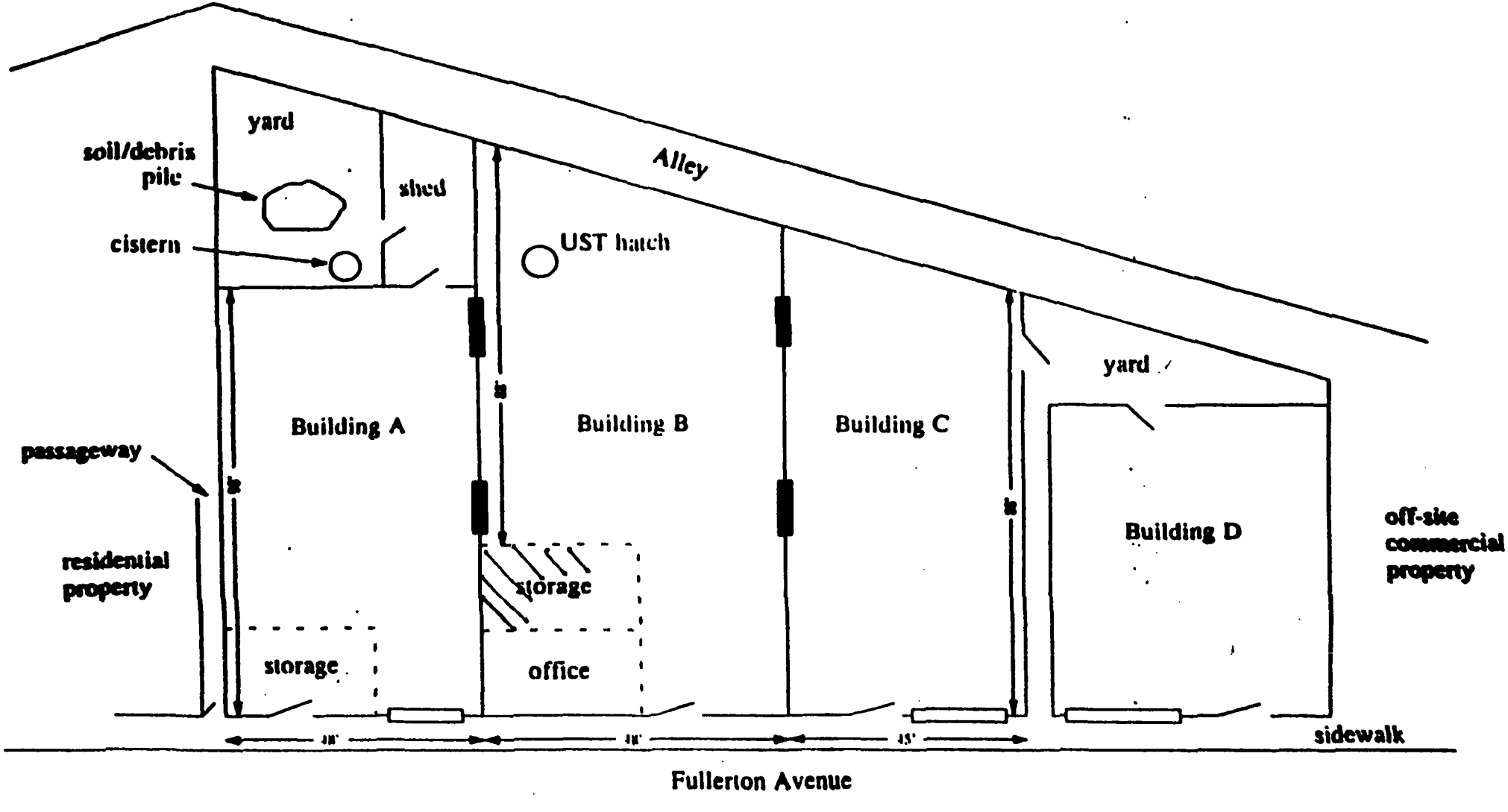
Analysis Requested: _____ **Turn Around Time:** _____

Subject Site: 1662 W. Fullerton
Chicago, IL.

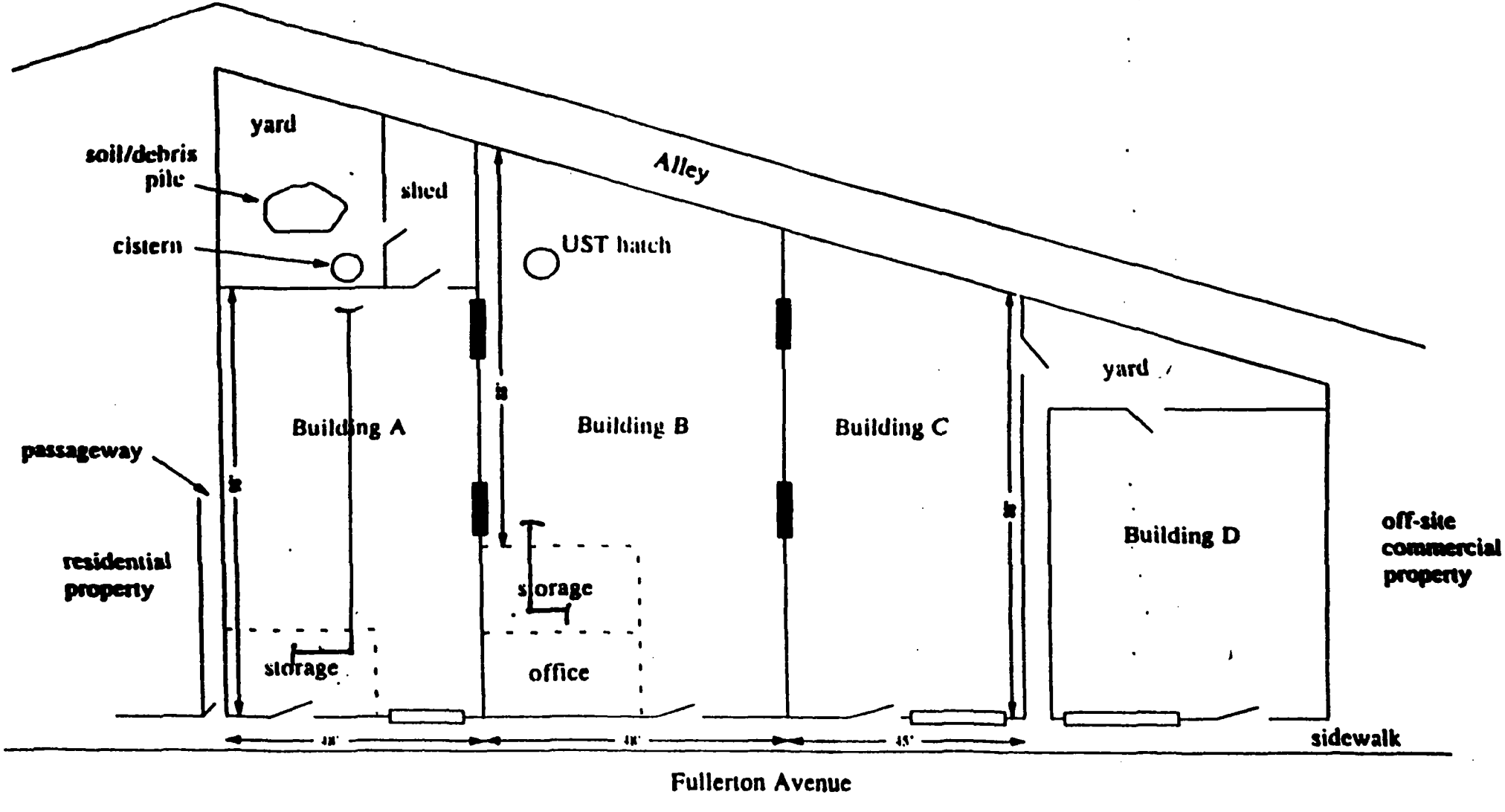
TOTAL P.03

APPENDIX B

Material Locations



HA: (B) 12" Gray Floor Tile and Mastic 350 square feet



HA: (A) Air Cell Pipe Insulation 200 lineal feet

State of Illinois A 109670
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

JOHN R. LUMPKIN, M.D.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

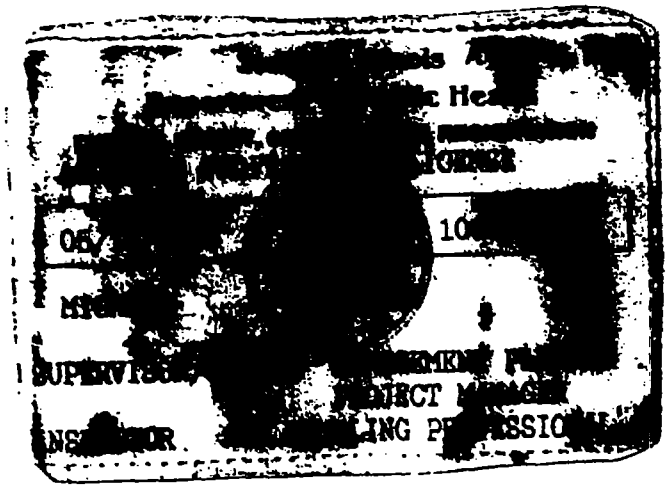
EXPIRATION DATE	CATEGORY	I.D. NUMBER
05/15/2001	5319	100-6299

MICHAEL CASEY

SUPERVISOR/WORKER MANAGEMENT PLANNER
PROJECT MANAGER
INSPECTOR AIR SAMPLING PROFESSIONAL

BUSINESS ADDRESS
ASBESTOS PROFESSIONAL LICENSE
ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION
MICHAEL CASEY
1425 W AUGUSTA BLVD APT#1R
CHICAGO IL 60622
THIS LICENSE IS NOT VALID IF YOUR IDPH
COURSE CERTIFICATE IS NOT CURRENT

Printed by Authority of the State of Illinois ● 2/91 ●



AMERISAFE TRAINING SERVICES

ASBESTOS BUILDING INSPECTOR INITIAL COURSE CERTIFICATE

IDPH & IDEM APPROVED

This is to certify

MICHAEL CASEY
319-64-6181

Has successfully completed the EPA/Approved Asbestos Building Inspector Initial Training Course and passed the Examination for purposes of accreditation under section 206 of Title II of the Toxic Substances Control Act (TSCA). Conducted by Amerisafe Training Services, 2050 N. 15th Avenue, Melrose Park, IL. 60160. 1-708-681-1250.

LOCATION	DEPAUL/NAPERVILLE & AMERISAFE/MELROSE PARK	EXAMINATION	MARCH 15, 2000
COURSE DATES	MARCH 13-15, 2000	EXPIRATION	MARCH 15, 2001

DIRECTOR OF TRAINING

Certificate Number: ATS 200191

National Institute of Standards and Technology **NVLAP** National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation

BULK ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 101202-0**

STAT ANALYSIS CORPORATION
2201 W. Campbell Park Dr.
Chicago, IL 60612-3501
Dr. Surendra N. Kumar
Phone: 312-733-0551 Fax: 312-733-2386

NVLAP Code	*Designation*
18/A01	EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

June 30, 2001
Effective through

David F. Alderman
For the National Institute of Standards and Technology

APPENDIX I – TABULTED UST CONTENT ANALYSIS

UST ANALYSIS DATA
FORMER ELECTRO FINISHERS
CHICAGO

UST contents	Result	RCRA Limit
PCB (Total)	<2.0	2
Chromium	17	1
Cyanide (Amenable)	<0.5	0.5
Cyanide (Total)	4.5	1
ALL RESULTS IN ppm		

APPENDIX J – LETTER TO CDE REGARDING UST

Seneca Environmental Services

October 17, 2002

Mr. Raul Valdivia
Chicago Department of Environment
30 North LaSalle, 25th Floor
Chicago, IL 60602
Attn: Underground Storage Tank Notification

Re: UST
Former Electro Finishers
1662 West Fullerton Avenue
Chicago, IL

Dear Mr. Valdivia:

On behalf of the property owner of the Subject Property, I would like to notify the Chicago Department of Environment that an underground storage tank (UST) used to heating oil for consumptive use on the premises that located at this property is a pre January 1, 1974 UST. Based on these criteria, the UST should not require removal. Additionally, the UST is located in the interior of the Building and near a support beam for it. Removal of the UST would undermine the structural integrity of the Building

Thank you for your consideration of this request. Should you have any questions, please call me at (5630 332-8000.

Sincerely,
Seneca Environmental Services

Scott E. Killip
Branch Manager

cc: Lisa Kritt
James Petrozinni

Des Moines

P.O. Box 3360
4140 N.E. 14th Street
Des Moines, Iowa 50316-0360
515•262•3500
800•369•3500
515•262•2469 FAX

Bettendorf

17851 244th Avenue
Bettendorf, Iowa 52722
563•332•2272
800•728•6900
563•332•9465 FAX